Species Composition and Seasonal Abundance of Zooplankton in Lake 224, Experimental Lakes Area, Northwestern Ontario, 1974-1978

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SPECIES COMPOSITION AND SEASONAL ABUNDANCE OF ZOOPLANKTON IN LAKE 224, EXPERIMENTAL LAKES AREA, NORTHWESTERN ONTARIO, 1974-1978

by

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ABSTRACT

Chang, P.S.S., D.F. Malley, W.J. Findlay, and G. Mueller. 1983. Species composition and seasonal abundance of zooplankton in Lake 224, Experimental Lakes Area, northwestern Ontario, 1974-1978. Can. Manuscr. Rep. Fish. Aquat. Sci. 1720: iv + 51 p.

Zooplankton of Lake 224 in the Experimental Lakes Area was sampled on 46 dates from 1974 to 1978. Thirty-seven taxa of zooplankton were identified. The abundances of all but the rare species are given for each sampling date and for several depth strata. In terms of individuals, Lake 224 zooplankton was dominated by rotifers. They averaged 67% of total number of individuals in the 0-15 m stratum of the 27 m deep lake, whereas calanoid copepodids averaged about 20%. Cyclopoid copepods contributed about 10% to numbers in the 0-15 m stratum but were also found distributed to a significant extent below 15 m. Cladocerans usually contributed 3% or less to numbers. Dominant crustaceans were calanoids (Diaptomus minutus, D. sicilis, Epischura lacustris), cyclopoids (Cyclops bicuspidatus thomasi, Tropocyclops prasinus mexicanus) and cladocerans (Bosmina longirostris, Daphnia galeata mendotae x thorata and Diaphanosoma brachyurum). A comparison between the zooplankton samples obtained with nets of two different mesh sizes (53, 153 μ) indicated no significant difference in capture of zooplankton by the two mesh sizes except for the smallest organisms, namely the rotifers and copepod nauplii.

Key words: Rotifera; Crustacea; Copepoda; Cladocera; eggs.

RESUME

Chang, P.S.S., D.F. Malley, W.J. Findlay, and G. Mueller. 1983. Species composition and seasonal abundance of zooplankton in Lake 224, Experimental Lakes Area, northwestern Ontario, 1974-1978. Can. Manuscr. Rep. Fish. Aquat. Sci. 1720: iv + 51 p.

On a effectué un échantillonnage du zooplancton dans le lac 224 de la Région des Lacs Expérimentaux sur 46 occasions entre 1974 et 1978. Trente-sept espèces de zooplancton ont été identifiées. Ce rapport donne le nombre de chaque espèce (à l'exception des espèces rares) selon la date de l'échantillonnage et diverses profondeurs. Les rotifères constituaient l'espèce dominante du lac 224, soit 67% de la population totale dans les eaux de 0 à 15 m en profondeur de ce lac profond de 27 m, tandis que les calanes, de l'ordre des copépodes, représentaient en moyenne 20% de la population. Les copépodes de la famille des cyclopidés représentaient 10% du zooplancton des eaux de 0 à 15 m, mais se trouvaient aussi en nombre considérable à plus de 15 m. Les cladocères ne représentaient que 3% ou moins de la population totale. Chez les plus nombreux des crustacés, on retrouve les calanes (Diaptomus minutus, D. sicilis, Epischura lacustris), les cyclopidés (Cyclops bicuspidatus thomasi, Tropocyclops prasinus mexicanus) et les cladocères (Bosmina longirostris, Daphnia galeata mendotae x thorata, Diaphanosoma brachyurum). Une comparaison entre les échantillons de zooplancton pris à l'aide de filets de deux maillages différents (53 et 153 μ) n'a révélé aucune différence dans les prises, sauf pour les plus petits organismes, soit les rotifères et les naplius des copépodes.

Mots-clés: rotifères; crustacés; copépodes cladocères; oeufs.

INTRODUCTION

Lake 224, in the Experimental Lakes Area, northwestern Ontario has been subjected to trace additions of radioactive substances (Hesslein et al. 1980 a,b) rather than to large-scale additions aimed at changing its chemistry. Consequently, Lake 224 serves as a virtually unmodified control lake providing data on seasonal and year-to-year variability in physical, chemical and biological parameters for comparison with other ELA lakes subject to addition of nutrients or acids, such as Lakes 227 and 223 (Schindler et al. 1971, 1973, 1980).

In July, 1976, the epilimnion of Lake 224 was spiked with six gamma emitting isotopes, Hg-203, Se-75, Zn-65, Cs-134, Fe-59 and Co-60. The purpose of that study was to trace chemical and biological pathways in the lake and to determine uptake rates and accumulations for these isotopes in various geochemical and biological compartments, including zooplankton. Quantities of radioactive metals in the water, samples from sedimentation traps and sediments are given by Hesslein et al. (1980a).

This report serves two purposes. Firstly, it documents variability in zooplankton species composition and in seasonal and year-to-year abundances in a relatively unmanipulated control lake at ELA. Secondly, it presents the zooplankton composition in samples taken from July, 1976 to September, 1978, in which the quantities of six metal radioisotopes have also been measured (Hesslein, unpublished data).

METHODS

CHARACTERISTICS OF LAKE 224

Lake 224 is located at 49°42'N latitude and 93°43'W longitude. It is 25.9 ha in surface area, and has mean and maximum depths of 12 and 27 m, respectively. The bathymetric map of Lake 224 (Fig. 1) shows the zooplankton sampling sites.

Lake 224 is thermally stratified from the spring until turnover in October (Table 1). Table 1 provides epilimnion temperatures on or near zooplankton sampling dates. The depth of the epilimnion is given for comparison with the depth of the upper sampling layer. Based on Secchi depth, the lake is among the clearest at ELA (Table 1; Table 1 in Patalas 1971). Average ice-free season Secchi visibility increased each year. Mean time-weighted, ice-free season Secchi depths were 6.25, 6.96, 7.15, 7.92 and 8.17 m for the years 1974 to 1978, respectively. The reason for the marked increase in this measurement with time is not known. Light extinction coefficient, which integrates over a larger range of wave lengths, changed little from year to year. Ice-free season averages, measured over 0 to 20 m depth, were 0.30 in 1974 (Shearer 1976), 0.29 in 1975 (Shearer and DeClercq 1976) 0.28 in 1976 (Shearer and DeClercq 1977), 0.27 in 1977 (Shearer and DeClercq 1978), and 0.27 in 1981 (Shearer and DeBruyn 1982). Primary production is the lowest among the ten or so lakes routinely sampled at ELA. Annual averages were 17.7 g C m^{-2} yr^{-1} in 1974, 15.5 in 1975 (Fee 1980), 17.7 in 1976, 32.9 in 1977 (Fee et al. 1982) and 43.9 in 1981 (Shearer, unpublished data).

ZOOPLANKTON SAMPLING

The zooplankton sampling program in Lake 224 began in May 1974. Sampling methods are summarized in Table 2. From 22 May 1974 to 2 June 1975 samples were taken at intervals of one to four weeks near the centre of the lake over the deepest point using a transparent trap, 28.7 L in volume (Schindler 1969). This encloses a volume of lake water about 0.5 m in height. Samples were taken in a vertical series at 3 m depth intervals, except on 2 June 1975 when samples were taken at intervals of 0.5 m. The samples of lake water were filtered through a 53 µ mesh net. During thermal stratification, trapfuls from the epilimnion were pooled and those from the remainder of the water column (metalimnion and hypolimnion) were combined. All other times the entire vertical series was pooled.

In order to conserve sampling effort, from 30 June to 20 October 1975, a 9.1 L plexiglass tube, 7.6 cm in diameter and 2 m in length, was used. The sampling was repeated 10 times and individual samples were pooled after filtration through a 53 µ mesh net. Samples for this period thus represent the 0 to 2 m layer only and are not directly comparable with those from other years. All samples in 1974 and 1975 were preserved immediately in the field in 10% formalin.

In 1976 to 1978, zooplankton sampling was intensified to obtain sufficient material for analysis of the six added radioisotopes as well as for zooplankton identification and enumeration. Size fractionation of the zooplankton was attempted by use of nets of two mesh sizes. Samples were obtained by vertical hauls of a 4-barrel, non-closing sampler described by Chang et al. (1980). This consisted of two plexiglass rings, 15 cm in diameter bearing nets of 153 µ mesh size and two smaller plexiglass rings 7.5 cm in diameter bearing nets of 53 µ mesh. All nets were 1.5 m long and tapered to 3.5 cm at the lower edge. In order to sample zooplankton from various depth strata, the sampler was hauled from each of 5, 10, 15, 20 and 25 m depths to the surface. The 0-5 m and 0-10 m samples were composites from a single haul of the sampler at each of the five stations indicated on Fig. 1. For 0-15 m and 0-20 m, the sampler was hauled twice at each of stations 0 and 24 and once at station 17. The 0-25 m stratum was sampled by hauling three times at station 0 and twice at station 24. Samples from the small and large mesh nets (2 nets x 5 hauls) were separately pooled in 1 L bottles containing 10 mL of 100% formalin. In the laboratory, zooplankton were settled for several hours and total sample volume was reduced to 110 mL by decanting liquid off the top. Ten mL were subsampled from the uniformly mixed 110 mL sample for identification and enumeration of zooplankton. The remainder of the sample was retained for gamma counting of the radioactive metals. All zooplankton samples were preserved for shelf storage in 5% formalin.

IDENTIFICATION OF SPECIES AND DATA ANALYSIS

All samples for identification and enumeration were brought to a known volume. Two or three 1 mL aliquots from each sample were examined using a compound light microscope and a Sedgwick-Rafter counting chamber. Adult copepods and all cladocerans were identified to species. Juvenile copepods were assigned as calanoid or cyclopoid and were identified to naupliar or copepodid stage. Number of eggs per female were recorded. Rotifers were usually identified to species, otherwise to genus. Ovid rotifers as well as total number of each species were enumerated. Species identifications were principally based on Edmondson (1959) and Brooks (1957) for crustaceans and Ruttner-Kolisko (1974) for rotifers.

Dry weight biomass for individuals of each species was estimated by calculating the volumes of geometric configurations of the organisms (Lawrence, Malley, Findlay and Delbaere in prep.).

Abundance, no. m^{-3}, of each species or life stage was calculated from the number of individuals in the sample and the volume of lake water sampled. Table 3 gives sample calculations for Diaptomus minutus. Since the sampling device used for sampling zooplankton during 1976 to 1978 was a non-closing sampler hauled from the depth of 5 m, 10 m, 15 m, 20 m, and 25 m to the lake surface, samples were overlapping. The number of zooplankton in the 5-10 and 10-15 m strata was determined by subtracting the raw counts for the 0-5 and 0-10 m sample from the 0-10 and 0-15 m samples respectively. Negative abundances resulting from these subtractions indicated sampling error. Abundance, no. m^{-2} was calculated by adding together the numbers in each thermal layer weighted for the proportion that that thermal layer contributed to the whole lake volume (Table 3). This volume-weighting procedure can be visualized as converting the lake into a vertically-sided Petri dish with surface area equal to that of the lake. The strata are layers whose thickness is determined by their proportionate contribution to the whole lake volume. The contribution of zooplankton in each stratum to the number m^{-2} is determined by their density in that stratum and by the "thickness" of the stratum.

The number of zooplankton in the 15-25 m stratum was determined by subtracting raw counts for the 0-15 m stratum from raw counts for the 0-25 m sample. The number of organisms in the 15-25 m stratum was expressed as a per cent of the total in the water column:

$$\frac{\text{vol.-weighted no. in 15-25 m}}{\text{(vol.-weighted no. in 0-15 m) + (vol.-weighted no. in 15-25 m)}} \times 100$$

RESULTS AND DISCUSSION

ZOOPLANKTON SPECIES COMPOSITION, SEASONAL ABUNDANCES AND COMMUNITY STRUCTURE

Thirty-seven taxa were identified from Lake 224 from 1974 to 1978. Relative abundances are indicated in Table 4. Seven species of cladocerans were identified in this period but only four were numerically important. The daphnid is referred to as Daphnia galeata mendotae x thorata since individuals above 1.5 mm in body length bore some characteristics of Daphnia thorata, i.e. 10-13 anal teeth, concavity at eye level and a rounded helmet (Findlay and Delbaere, in prep.). Individuals smaller than 1.5 mm body length were typical of D. galeata mendotae. Three species of calanoid copepods and four species of cyclopoid copepods were identified. Twenty-three forms of rotifers were found. Abundances of individual species or life stages expressed as numbers of individuals m^{-3} in various depth strata on each sampling date are reported in Appendix 1 (53 μ mesh net only). Numbers of eggs m^{-3} of selected species are given in Appendix 2 (53 μ mesh net only).

At most times, Lake 224 zooplankton was dominated, in terms of individuals, by rotifers (Table 5), although during the winter crustaceans in a few cases were more numerous. Rotifers averaged 67% of the total number of zooplankton. Of the crustaceans, calanoids dominated, averaging 20% of the total numbers. Cyclopoids were the next most common group. Cladocerans were represented by the fewest individuals, rarely exceeding 5% of total zooplankton numbers. Cyclopoids fluctuated widely from season to season with an average percentage contribution ranging from 5% in summer and 2% in fall to about 30% in winter and 13% in spring (Table 5). As indicated below, a significant proportion of the cyclopoids in the water column occurred below 15 m. Thus the proportion of cyclopoids in Table 5 for 1976 to 1978 is underestimated possibly by as much as 50%. Nevertheless, even doubling these figures for the cyclopoids does not change greatly the percentage composition of rotifers, calanoids, cyclopoids and cladocerans in Lake 224. Although individually rotifers are much smaller in terms of biomass, than crustaceans, their abundance makes them a significant contributor to the biomass of the zooplankton community. Dry weight biomass of individuals of various species/life stages is given in Appendices 3A to 3D.

At the present time, few samples taken in 1976 and 1977 for the 0-25 m stratum have been analyzed. None from the 0-20 stratum were analyzed. Table 6 indicates that 40% of the adult Cyclops bicuspidatus thomasi in the water column occurred below 15 m on the average over four dates. The cyclopoid nauplii preferred the deeper water; 82% occurred below 15 m. Cyclopoid copepodids, especially C4 and C5 occurred, predominantly in the 15-25 m stratum. Individuals in stages C1 to C3 were too rare in these samples to determine vertical distribution.

Cladocerans, calanoid adults, nauplii and copepodids C1 to C4 appeared to be restricted to the 0-15 stratum, whereas one-third of the calanoid C5 were obtained below 15 m. Overall, an average of 28% of the crustaceans in the water column were recorded in the 15-25 m stratum, based on four sampling dates (Table 6).

Overall, 84% of the rotifers were present

between the surface and 15 m, but some species, Keratella cochlearis and K. hiemalis preferred the 15-25 m stratum (Table 6).

Patalas (1971) classified 45 ELA lakes into four types based on area and maximum depth. Lake 224 fell into type II, lakes intermediate in area (6.5 - 200 ha) and depth (4.8 - 33 m). The zooplankton community characteristic of this type of lake possesses two dominants, C. bicuspidatus thomasi and D. minutus and lacks Limnocalanus and Senecella found in larger, deeper lakes.

Using the criterion for "dominant" species as those species which contributed more than 10% of the total number to a community (Patalas 1971), our data show that the Lake 224 crustacean community was dominated by Diaptomus minutus, D. sicilis, Epischura lacustris, Cyclops bicuspidatus thomasi and Tropocyclops prasinus mexicanus. On five of the 46 days sampled, one or two cladocerans were also dominants. On some September dates, one or more of Bosmina longirostris, Diaphanosoma brachyurum and Daphnia galeata mendotae x thorata were dominants. On 20 July 1978, D. brachyurum was a dominant.

The dominance by Diaptomus species is a constant feature of the zooplankton community of Lake 224. Patalas (1971) sampled Lake 224 on 27 September 1967 as part of a regional survey of 45 ELA lakes. He reported that the two species D. minutus and D. sicilis were equally abundant in Lake 224 on that date. Our data (Appendix 1) support his conclusion that D. minutus occupies the upper layers of water, whereas D sicilis is found in deeper water, at least during the summer. The two species appear to have distinct temperature preferences. Diaptomus minutus was most abundant during the summer and fall and was largely in the epilimnion (Appendix 1). Diaptomus sicilis at those times was below the epilimnion (Appendix 1) but during the winter inhabited the entire 0-15 m water column. Diaptomus sicilis is characteristically an inhabitant of deep, clear lakes, where it tends to avoid the surface (Carter et al. 1980).

Our data from 1974 to 1978 agree well with the community analysis of Lake 224 zooplankton on 27 September 1967 by Patalas (1971) (Table 7), except for two notable differences. One is the importance of Tropocyclops prasinus mexicanus during 1974 to 1978 (Table 4) compared with its absence in September 1967 (Table 7). Secondly, Diaptomus oregonensis, reported in 1967 (Table 7), was not recorded in any subsamples regardless of season from 1974 to 1978 (Table 4). Cyclops vernalis, Leptodora kindtii and Mesocyclops edax, reported by Patalas, were not found in our September samples but were recorded at other times in Lake 224 during 1974 to 1978 (Table 4). Patalas reported the percentage composition of the crustaceans on 27 September 1967 to be 75.9% calanoids, 19.6% cladocerans and 4.3% cyclopoids. Table 7 compares total number m^{-2} of crustaceans and percentage composition in Lake 224 on six September or early October dates between 1974 and 1978 with that obtained on 27 September 1967. Numbers of nauplii and copepodids were attributed to copepod species according to the proportions of species comprising the adults. Overall, the planktonic crustacean community of Lake 224 over the 11 year period was relatively constant in terms of species composition, with minor exceptions, and in terms of species dominance patterns and total numbers of individuals m^{-2}. Numbers were somewhat larger in 1974, 1976, 1977 and 1978 than in 1967. This may be due to the 90 μ mesh size which may capture nauplii less efficiently than the 53 μ mesh used in the present study. Diaptomus dominated the crustacean zooplankton in each year. Daphnia galeata mendotae x thorata, B. longirostris, E. lacustris and C. bicuspidatus thomasi contributed significant but somewhat variable proportions to the zooplankton each year. Diaphanosoma was rare in all years. It is likely that T. prasinus mexicanus, present in significant numbers in 1974 to 1978 samples, was present in the lake in 1967 but missed in the sampling. Coefficients of community similarity (Jaccard 1932) between each year and 1967 varied from 42 to 58%. These coefficients are high relative to comparisons between ELA lakes (Table 4 in Patalas 1971). They are very constant within 1974 to 1976 reflecting relative constancy of species composition.

COMPARISON OF SAMPLES OBTAINED WITH SMALL VS. LARGE MESH NETS

There were no significant differences in efficiency of capture of zooplankton by nets of two mesh sizes, 53 μ and 153 μ, except for the very small organisms, the copepod nauplii and rotifers (paired t-test, Table 8). Thus, it appears adequate to use the large mesh net if one is interested in sampling large, rare crustaceans or in preparing a crustacean species list. However, the large mesh, large diameter net did not capture large, mobile forms more effectively than did the small mesh net. Use of the 153 μ mesh net did not produce a representative sample of ELA zooplankton. In Lake 224, rotifers composed an average of about 67% of the total zooplankton individuals (Table 5) when samples were obtained with the 53 μ mesh net but were rare in samples taken with the 153 μ mesh net (Table 8). Therefore, of the two mesh sizes, the small mesh was the more effective in sampling ELA zooplankton since it not only captured the large organisms as effectively as the large mesh but also captured small organisms not retained at all by the large net.

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Table 1. Temperature and transparency of Lake 224 on or near zooplankton sampling dates, 1974 to 1978. (Data provided by ELA project personnel).

Date	Surface Temp.(°C)	Mean Epilimnion Temp. (°C)	Lower limit of Epilimnion [a](m)	Secchi visibility[b] (m)
May 22, 1974	10.88	10.22	3.1	6.0
Jun 19	17.15	16.70	4.5	6.0
Jul 17	23.70	23.70	5.1	6.0
Aug 14	20.45	20.42	6.5	6.0
Sep 11	14.55	14.62	8.8	6.5
Oct 9	8.44	8.44	14.5	7.0
Nov 7	5.56	5.58	-	N A
Jun 5, 1975	15.56	15.56	5.1	6.8
Jun 30	22.42	22.38	3.8	N A
Jul 28	22.13	22.06	6.1	7.8
Aug 25	19.22	19.22	7.5	7.0
Sep 22	13.42	13.42	10.3	N A
Oct 20	10.41	10.41	13.1	6.25
May 31, 1976	18.92	18.46	3.3	7.2
Jun 28	19.06	19.08	5.9	8.2
Jul 12	22.09	22.06	5.6	6.25
Jul 26	21.70	21.70	6.9	6.9
Aug 9	21.22	21.22	7.4	7.0
Aug 23	21.96	21.97	7.8	7.8
Sep 6	18.08	18.08	9.5	7.25
Sep 20	16.95	16.98	10.1	7.5
Oct 4	13.36	13.43	12.4	N A
Oct 18	8.95	9.01	16.6	6.25
May 2, 1977	6.87	6.77	-	8.0
May 9	9.30	9.30	4.8	7.75
May 16	17.66	17.46	2.3	7.5
May 23	17.88	17.91	2.6	6.0
May 30	21.03	20.83	3.1	8.2
Jun 7	19.18	19.18	4.1	7.4
Jun 14	17.63	17.75	5.1	8.85
Jun 21	17.65	17.53	5.8	9.8
Jun 27	21.41	21.15	3.3	10.0
Jul 4	20.96	20.85	5.3	9.2
Jul 11	20.71	20.71	5.3	9.0
Jul 18	22.00	22.04	5.8	7.5
Jul 25	22.32	22.41	5.5	7.8
Aug 1	19.98	20.03	6.8	8.6
Aug 15	17.86	17.94	8.1	9.0
Aug 25	17.70	17.72	8.6	8.7
Aug 29	17.24	17.26	8.1	8.4
Sep 19	15.35	15.38	10.1	6.25
Sep 26	14.25	14.31	11.4	7.25
Oct 3	12.63	12.68	12.1	6.8
Oct 10	10.50	10.51	13.4	7.2
Oct 17	9.19	9.19	15.1	6.8
Oct 24	8.44	8.44	16.9	6.2
May 15, 1978	9.11	8.95	5.8	9.0
Jun 12	14.42	14.40	5.3	7.6
Jul 10	20.58	20.69	4.8	8.8
Aug 7	19.37	19.35	7.1	8.5
Sep 4	19.17	19.11	8.4	7.5
Oct 2	13.01	13.00	10.6	7.6

a "-" indicates lack of stratification
b "N A" indicates no data available

Table 2. Summary of methods used to sample zooplankton of Lake 224 during 1974-1978.

Period	Sampler	Mesh size of nets (μ m)	Mouth diameter of each net (m) (d)	Sampler surface area (m^2) (A)	Vol. of lake water sampled (m^3) (V)	Remarks
22 May 1974 2 Jun 1975	Schindler trap	53	-	-	0.0287 x no. of trapfuls pooled	vertical series at 3m intervals, except 2 Jun 1975 which was at 0.5 m intervals
30 Jun - 20 Oct 1975	2 m long plexiglass tube	53	0.076	0.00454	A x 2 m depth x 10 hauls = 0.091	Surface to 2 m only
1976 -78	4 barrel non-closing sampler	two small nets: 53	0.075	0.00884	A x 5 hauls x depth of sampling layer (m)	vertical hauls from 5, 10, 15, 20, and 25 m to surface
		two large nets: 153	0.15	0.0354	A x 5 hauls x depth of sampling layer (m)	

Table 3. Sample calculations of abundance of the calanoid, Diaptomus minutus in selected samples taken from Lake 224 with the small mesh net.

Date	Sampling depth interval (m)	Vol. of sample concentrated (mL) S	Raw count No. in 1 mL N	Abundance: No. per m^3 = $\frac{N \times S}{V}$ (V from Table 2)	Abundance: No. Ind. per m^2 = $\frac{\text{No. } m^{-1} \text{ in lake layer} \times \text{volume of that layer } m^3}{\text{surface area of lake } m^2}$
19 Jun 1974	0 - 3	43	2.667	$\frac{2.667 \times 43}{0.0574} = 1998$	$\frac{1998 \times 71.6 \times 10^4}{25.92 \times 10^4} = 5519$
30 Jun 1975	0 - 2	34	11.667	$\frac{11.667 \times 34}{0.091} = 4359$	$\frac{4359 \times 49.10 \times 10^4}{25.92 \times 10^4} = 8257$
23 Jul 1976	0 - 5	82	4.333	$\frac{4.333 \times 82}{0.2209} = 1609$	$\frac{1609 \times 112.67 \times 10^4}{25.92 \times 10^4} = 6994$
21 Jul 1977	5 - 10	165	7.5	$\frac{7.5 \times 165}{0.2209} = 5602$	$\frac{5602 \times 82.3 \times 10^4}{25.92 \times 10^4} = 17787$

Table 4. Zooplankton species identified from Lake 224 during the period 1974-78. A + indicates that a species was present in low numbers usually less than 1,000 m^{-3} for crustaceans and 10,000 m^{-3} for rotifers, ++ indicates that it was frequently more numerous, and - indicates that no organisms were found in the subsamples.

Species	1974	1975*	1976	1977	1978
Cladocera					
Daphnia galeata mendotae x thorata Forbes	+	+	++	++	+
Bosmina longirostris (Müller)	+	+	++	++	+
Diaphanosoma brachyurum (Liévin)	+	+	++	+	+
Holopedium gibberum Zaddach	+	-	-	+	-
Leptodora kindtii (Focke)	-	-	+	+	+
Chydorus sphaericus Müller	-	-	-	+	-
Alona sp.	-	-	+	-	-
Calanoida					
Diaptomus minutus Lillj.	++	++	++	++	++
Diaptomus sicilis Forbes	+	-	++	++	++
Epischura lacustris Forbes	+	+	+	+	+
Calanoid nauplii N1-N6	+	+	++	++	++
Calanoid copepodids C1-C5	++	++	++	++	++
Cyclopoida					
Cyclops bicuspidatus thomasi Forbes	++	-	++	++	++
Cyclops vernalis Fischer	-	-	-	+	-
Mesocyclops edax Forbes	-	-	+	+	-
Tropocyclops prasinus mexicanus Kiefer	+	+	+	+	+
Cyclopoid nauplii N1-N6	+	+	+	++	++
Cyclopoid copepodids C1-C5	+	+	+	+	+
Rotifera					
Conochilus unicornis Rousselet	+	+	++	+	+
Filinia longiseta (Ehrbg.)	-	-	-	-	+
Collotheca sp.	++	+	++	++	++
Ploesoma truncatum (Levander)	+	+	+	+	+
Polyarthra vulgaris Carlin	+	+	++	++	+
Polyarthra remata Skorikow	+	+	++	+	+
Polyarthra dolichoptera Idelson	-	-	-	-	+
Synchaeta sp.	-	-	-	-	+
Ascomorpha sp.	+	+	+	+	+
Gastropus stylifer Imhof	-	-	-	-	+
Gastropus hyptopus (Ehrenberg)	-	-	-	-	+
Gastropus sp.	+	+	+	+	+
Trichocerca cylindrica (Imhof)	+	+	++	+	+
Trichocerca porcellus (Gosse)	-	-	+	-	-
Trichocerca sp.	+	+	+	+	+
Keratella taurocephala Myers	+	+	+	+	+
Keratella cochlearis (Gosse)	+	+	+	++	++
Keratella hiemalis Carlin	+	-	+	+	+
Keratella quadrata (Müller)	-	-	-	-	+
Kellicottia longispina (Kellicott)	+	+	+	+	++
Kellicottia bostoniensis (Rousselet)	+	-	-	-	-
Anuraeopsis fissa (Gosse)	+	-	+	-	+
Lecane sp. (includes Monostyla sp.)	+	+	+	+	+
Other globular rotifers	+	+	+	+	+

*0 to 2 m depth only

Table 5. Abundance of zooplankton, m^{-3} and m^{-2}, in Lake 224 from 1974 to 1978 and the percentage contribution by Cladocera, Calanoida, Cyclopoida and Rotifera. The depth of the water column considered on each date is reported.

Date	Depth m	Total organisms m^{-3}	Total organisms m^{-2}	Cladocera %	Calanoida %	Cyclopoda %	Rotifera %
1974							
May 22	0-21	24 047	504 992	0.3	44.0	20.3	35.4
Jun 19	0-24	45 209	1 085 028	0.5	10.9	5.4	83.2
Jul 17	0-24	19 871	476 894	2.2	25.0	12.1	60.7
Aug 14	0-24	28 790	690 965	1.4	19.6	4.9	74.1
Sep 11	0-24	21 268	510 427	4.6	15.2	8.8	71.4
Oct 9	0-24	11 563	277 527	0.8	27.3	26.3	45.6
Nov 6	0-24	18 104	434 516	0	17.3	30.9	51.8
1975							
Jun 2	0- 2	40 349	80 698	0.2	37.6	14.3	47.9
Jun 30	0- 2	38 336	76 672	0.6	62.1	0.9	36.4
Jul 28	0- 2	16 826	33 652	1.5	25.3	6.7	66.5
Aug 25	0- 2	22 730	45 461	1.1	19.8	6.0	73.1
Sep 22	0- 2	20 139	40 278	1.5	9.5	5.4	83.6
Oct 20	0- 2	7 587	15 174	0	21.0	1.2	77.8
1976							
Jul 23	0-15	35 917	538 768	4.2	36.7	7.4	51.7
Jul 26	0-15	43 506	652 589	2.7	29.1	3.6	64.6
Jul 29	0-15	47 053	705 802	3.8	28.5	3.3	64.4
Aug 5	0-15	32 087	481 310	3.4	28.0	4.0	64.6
Aug 12	0-15	58 622	879 324	1.9	21.1	4.5	72.5
Aug 19	0-15	54 895	823 424	3.5	21.6	4.3	70.6
Aug 26	0-15	66 402	996 037	4.0	15.8	3.1	77.1
Sep 2	0-15	70 603	1 059 045	4.8	16.5	3.0	75.7
Sep 9	0-15	58 533	878 004	5.1	19.3	2.7	72.9
Sep 16	0-15	64 948	974 218	2.4	13.4	1.4	82.8
Sep 30	0-15	37 069	556 038	5.3	26.7	1.7	66.3
Oct 14	0-15	29 359	440 384	4.8	28.5	1.6	65.1
Oct 28	0-15	32 701	490 521	1.5	29.2	29.1	40.2
Dec 13	0-15	34 539	518 093	0.2	37.1	30.8	31.9
1977							
Jan 25	0-15	21 791	326 865	0.3	24.1	28.1	47.5
Mar 2	0-15	38 757	581 355	0	46.9	26.9	26.2
Mar 28	0-15	62 324	934 859	0	52.2	18.6	29.2

Table 5. continued

Date	Depth m	Total organisms m^{-3}	Total organisms m^{-2}	Cladocera %	Calanoida %	Cyclopoda %	Rotifera %
May 16	0-15	125 336	1 880 041	0.4	11.2	12.5	75.9
Jun 16	0-15	133 899	2 008 490	1.0	12.2	3.0	83.8
Jul 21	0-15	83 496	1 252 441	5.6	20.4	3.1	70.9
Aug 25	0-15	33 355	500 327	7.0	30.4	8.2	54.4
Sep 29	0-10	11 520	115 200	12.2	6.1	1.2	80.5
Nov 1	0-10	18 084	180 842	2.0	31.5	18.8	47.7
Dec 15	0-15	44 799	671 985	1.4	18.3	29.3	51.0
1978							
Jan 12	0-15	30 716	460 737	0	14.4	26.3	59.3
Feb 13	0-15	53 523	802 846	0	19.5	18.0	62.5
Mar 13	0-15	68 099	1 021 484	0	33.2	11.8	55.0
May 17	0- 9	224 208	2 017 879	0	18.7	6.9	74.4
Jun 22	0-11	105 721	1 162 935	0.8	16.3	2.9	80.0
Jul 20	0-15	95 692	1 435 380	4.2	18.6	4.6	72.6
Aug 17	0-15	59 382	890 731	4.2	21.1	6.4	68.3
Sep 14	0-13	33 508	435 600	4.0	17.6	2.0	76.4
Oct 24	0-25	68 517	1 712 920	0.4	4.2	46.1	49.3
Mean %							
Spring[a]				0.1	24.6	13.2	61.9
Summer[a]				3.4	20.0	5.1	71.5
Fall[a]				8.7	16.9	1.5	73.1
Winter[a]				0.5	22.0	30.4	47.0
All seasons[a]				3.2	20.9	12.6	63.4
All seasons[b]				3.3	20.1	10.2	66.5

[a]excluding 1975 data since only 0-2 m sampled
[b]excluding 1974 and 1975 and Oct 24, 1978 data during which the water column sampled differed from other years

Table 6. Numbers of zooplankton in the 15-25 m stratum of Lake 224 compared with those in the 0-15 m stratum. Values are the mean ± S.E. of abundances on four dates, 26 July 1976, 19 August 1976, 30 September 1976 and 21 July 1977. Values in parentheses are the number m^{-2} between 15 and 25 m as % of total in the water column.

Group	Number m^{-2} between 0 and 15 m	Number m^{-2} between 15 and 25 m
Daphnia galeata mendotae x thorata	23 363 ± 6 437	<0
Bosmina longirostris	4 993 ± 1 910	106 ± 401
Diaphanosoma brachyurum	11 365 ± 4 514	901 ± 1 476
Total cladocerans	39 721 + 9 958	203 ± 1 534
Diaptomus minutus	17 212 ± 5 943	<0
D. sicilis	5 655 ± 3 370	<0
Epischura lacustris	3 090 ± 1 276	31 ± 290
Total calanoid adults	25 957 ± 8 200	<0
Calanoid N1	1 103 ± 517	<0
" N2	2 869 ± 1 058	546 ± 315
" N3	5 186 ± 2 533	<0
" N4	3 310 ± 1 505	<0
" N5	2 483 ± 1 652	<0
" N6	3 531 ± 2 907	<0
Total nauplii	18 481 ± 9 782	<0
Calanoid C1	2 896 ± 1 006	<0
" C2	2 731 ± 996	<0
" C3	5 048 ± 2 667	<0
" C4	66 728 ± 33 436	3 446 ± 3 137 (4.9%)
" C5	96 658 ± 21 219	47 821 ± 14 208 (33.1%)
Cyclops bicuspidatus thom.	11 972 ± 4 193	7 904 ± 2 268 (39.8%)
Tropocyclops prasinus mex.	4 634 ± 1 433	<0
Cyclopoid N1	3 421 ± 1 785	4 222 ± 1 893 (55.2%)
" N2	2 734 ± 1 110	16 292 ± 5 840 (85.6%)
" N3	2 097 ± 1 319	15 048 ± 8 900 (87.8%)
" N4	469 ± 293	4 071 ± 2 292 (89.7%)
" N5	304 ± 304	591 ± 598 (66.1%)
" N6	0 ± 0	167 ± 167 (100%)
Total nauplii	9 020 ± 3 326	40 392 ± 18 907 (81.7%)

Table 6. continued.

Group	Number m^{-2} between 0 and 15 m	Number m^{-2} between 15 and 25 m
Cyclopoid C1	497 ± 317	<0
" C2	166 ± 166	137 ± 137
" C3	497 ± 497	<0
" C4	496 ± 293	2 585 ± 1 950 (83.9%)
" C5	1 876 ± 1 076	7 020 ± 4 297 (78.9%)
Conochilus unicornis	24 579 ± 6 202	5 299 ± 8 629 (17.7%)
Filinia longiseta	0 ± 0	91 ± 91
Collotheca sp.	102 535 ± 37 308	14 070 ± 13 655 (12.1%)
Ploesoma truncatum	19 061 ± 11 520	<0
Polyarthra vulgaris	30 261 ± 18 976	2 168 ± 2 095
P. remata	41 184 ± 28 807	<0
Ascomorpha sp.	0 ± 0	83 ± 83
Gastropus sp.	10 344 ± 9 107	<0
Trichocerca cylindrica	331 ± 311	<0
Trichocerca sp.	2 428 ± 2 428	<0
Keratella taurocephala	0 ± 0	0± 0
K. cochlearis	116 024 ±108 614	49 202 ± 31 195 (29.8%)
K. hiemalis	0 ± 0	8 921 ± 5 251 (100%)
K. quadrata	166 ± 166	<0
Kellicottia longispina	35 723 ± 10 298	8 309 ± 2 098 (18.9%)
K. bostoniensis	0 ± 0	1 334 ± 1 334 (100%)
Lecane sp.	1 269 ± 496	<0
Globular rotifers	14 234 ± 6 301	<0
Total rotifers	398 633 ±119 463	74 377 ± 23 213 (15.7%)

Table 7. Per cent composition planktonic crustacean species in Lake 224 during the years 1967 and 1974-1978. The coefficient of community is given between the community present on six dates in the 1974-1978 period and that on 27 September 1967.

	Patalas (1971)	← This study →					
	1967	1974	1974	1976	1976	1977	1978
Sampling Date	Sep 27	Sep 11	Oct 9	Sep 16	Sep 30	Sep 29	Sep 14
Depth Stratum (m)	0-16.7	0-24	0-24	0-15	0-15	0-15	0-13
Secchi depth (m)	7.0	6.5	7.0	7.5	6.5	7.25	7.5
No. of species	11	9	7	8	9	9	9
Daphnia galeata mendotae x *thorata*	12.9	4.3	1.4	7.8	9.2	4.9	9.2
Bosmina longirostris	6.5	10.3	0	6.1	5.7	4.3	3.8
Diaphanosoma brachyurum/leuchtenbergianum	0.2	1.7	0	0	0.7	0.3	4.1
Holopedium gibberum	0	0	0	0	0	0	0
Leptodora kindtii	0.2	0	0	0	0	0	0
Diaptomus minutus	39.4	47.8	42.6	53.5	57.6	32.3	47.1
Diaptomus sicilis	32.3	0.7	5.5	16.9	19.2	38.0	4.4
Diaptomus oregonensis	0.7	0	0	0	0	0	0
Epischura lacustris	3.5	4.6	2.0	7.4	2.5	17.7	22.8
Cyclops bicuspidatus thomasi	1.4	17.2	18.6	3.5	0.3	0.4	2.1
Cyclops vernalis	1.4	0	0	0	0	0	0
Mesocyclops edax	1.5	0	0	0	0	0	0
Tropocyclops prasinus mexicanus	0	13.4	29.9	4.8	4.8	2.1	6.5
Total no. m^{-2}	110 000	145 679	151 123	168 266	187 463	165 875	103 324
Coefficient of Community[d]		58	42	50	58	58	58

[d]After Jaccard (1932),

$$C.C. = \frac{100 \times c}{a + b - c}$$

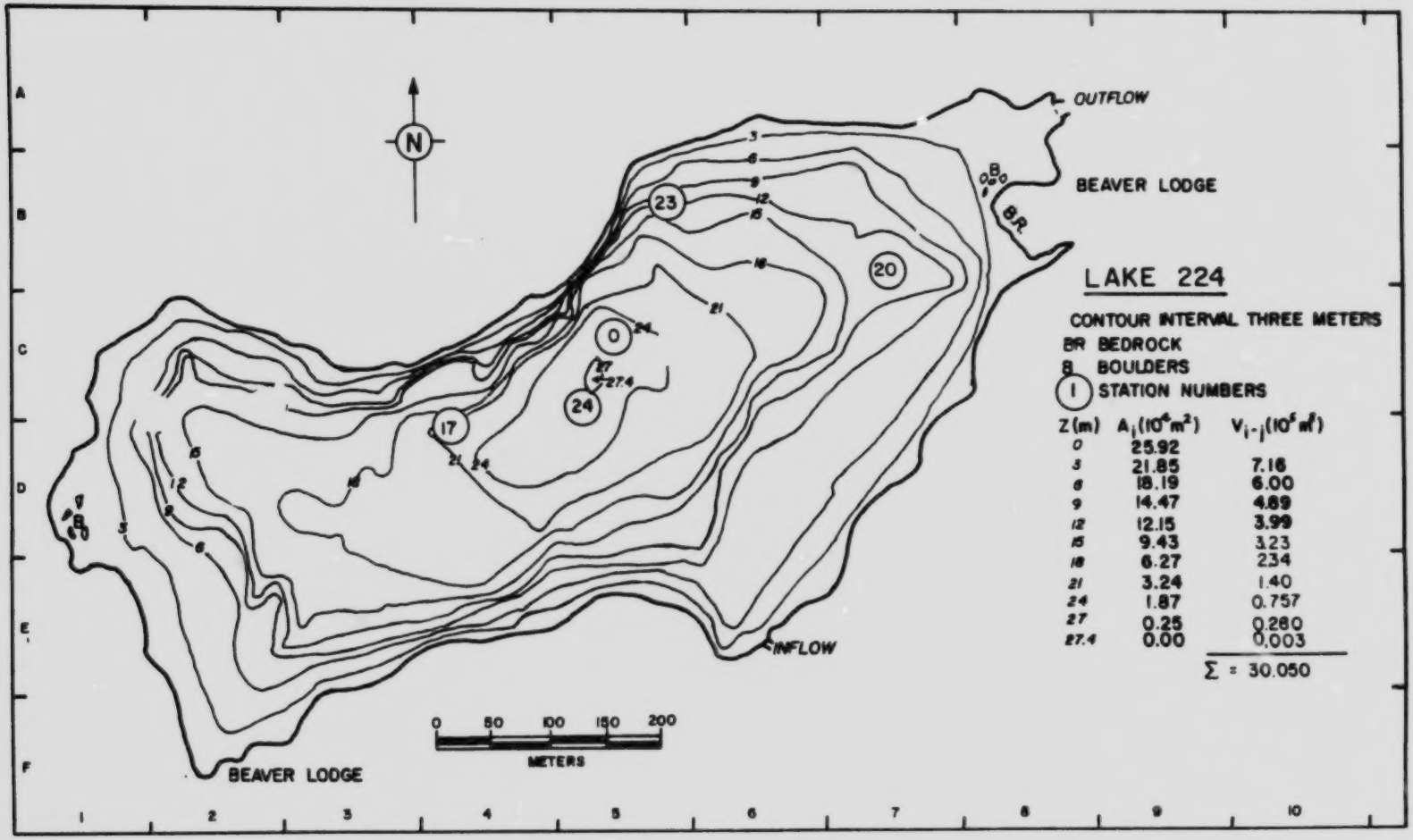
where a is the number of species in the first community, b is the number of species in the second community and c is the number of species common to both communities.

Table 8. A comparison of the average abundance of zooplankton (mean number m^{-3} ± S.E.) sampled by small mesh (53 μ), small diameter (7.5 cm) nets vs large mesh (153 μ), large diameter (15 cm) nets in Lake 224 for the stratum 0-15 on 10 sampling dates from 26 July to 30 September 1976.

Species	Small net	Large net	$\frac{\text{Small net } \bar{x}}{\text{Large net } \bar{x}}$	t, df = 9 (paired observation)	Probability that the sample means are the same
Cladocera					
Daphnia galaeta mendotae x thorata	2 129.4 ± 276.8	1 838.6 ± 245.6	1.16	1.34	0.214
" " " " eggs	583.3 ± 129.2	410.3 ± 95.1	1.42	1.56	0.154
Bosmina longirostris	707.2 ± 162.9	770.9 ± 187.3	0.92	-0.78	0.458
" " eggs	50.9 ± 26.0	43.5 ± 18.1	1.17	0.45	0.662
Diaphanosoma brachyurum	872.6 ± 187.4	586.9 ± 144.7	1.49	1.53	0.160
Total Cladocera	3 709.2 ± 424.2	3 196.4 ± 469.5	1.16	2.03	0.073
Calanoida					
Diaptomus minutus	1 662.3 ± 385.1	1 703.9 ± 393.8	0.98	-0.38	0.714
" " eggs	353.8 ± 112.6	445.1 ± 133.4	0.79	-0.88	0.402
Diaptomus sicilis	582.9 ± 151.1	508.9 ± 114.3	1.15	0.81	0.439
Epischura lacustris	349.8 ± 52.8	458.8 ± 53.2	0.76	-1.29	0.762
Total Calanoid adults	2 595.0 ± 504.2	2 671.6 ± 488.3	0.97	-0.97	0.485
Calanoid Nauplii N1	147.8 ± 51.3	7.5 ± 4.3	19.71	2.80	0.021*
" " N2	224.4 ± 64.2	5.2 ± 2.7	43.15	3.41	0.008**
" " N3	286.0 ± 74.2	18.1 ± 6.6	15.80	3.58	0.006**
" " N4	325.1 ± 72.2	49.7 ± 15.5	6.54	3.61	0.006**
" " N5	140.8 ± 40.1	47.2 ± 15.8	2.98	2.18	0.058
" " N6	59.5 ± 32.1	44.0 ± 19.0	1.35	0.53	0.610
Total Calanoid nauplii N1-N6	1 181.6 ± 276.4	171.7 ± 52.4	6.88	3.63	0.005**
Calanoid copepodids C1	264.7 ± 66.1	180.6 ± 42.7	1.47	1.16	0.277
" " C2	283.5 ± 67.2	327.6 ± 85.6	0.86	-0.53	0.607
" " C3	475.2 ± 135.8	891.2 ± 407.3	0.53	-1.36	0.206
" " C4	3 103.8 ± 1 010.5	1 734.8 ± 492.3	1.79	1.87	0.095
" " C5	12 675.7 ± 1 154.9	11 826.8 ± 1 752.9	1.07	0.78	0.453
Total Calanoid copepodids C1-C5	16 802.2 ± 846.3	14 961.0 ± 1 465.8	1.12	1.00	0.344
Cyclopoida					
Cylcops bicuspidatus thomasi	900.4 ± 188.8	802.6 ± 152.9	1.12	0.88	0.402
" " " eggs	61.1 ± 43.4	29.9 ± 15.7	2.04	1.02	0.337
Tropocyclops prasinus mex.	475.6 ± 57.1	274.9 ± 37.2	1.73	3.65	0.005**
Cyclopoid nauplii N1	331.8 ± 76.0	2.4 ± 2.4	138.25	4.45	0.002**
" " N2	435.3 ± 111.9	1.2 ± 1.2	362.75	3.88	0.004**
" " N3	251.6 ± 71.5	0 ± 0	-	3.52	0.004**
" " N4	189.7 ± 49.3	0 ± 0	-	3.85	0.007**
" " N5	45.2 ± 19.3	0 ± 0	-	2.34	0.004**
" " N6	0 ± 0	0 ± 0	-	-	0.044*
Total Cyclopoid nauplii N1-N6	1 254.6 ± 279.0	3.6 ± 3.6	348.50	4.51	0.002**
Cyclopoid copepodids C1	65.1 ± 24.1	20.0 ± 6.7	3.26	1.90	0.089
" " C2	87.1 ± 48.1	23.0 ± 8.0	3.79	1.42	0.189
" " C3	39.3 ± 20.6	45.1 ± 17.9	0.87	-1.03	0.331
" " C4	26.0 ± 14.1	39.4 ± 13.8	0.66	-1.04	0.324
" " C5	86.8 ± 41.9	146.5 ± 40.0	0.59	-1.97	0.080
Total Cyclopoid copepodids C1-C5	303.3 ± 89.7	274.0 ± 74.7	1.11	0.51	0.625
Total crustacean eggs	1 049.1 ± 161.2	928.8 ± 208.9	1.13	0.87	0.406
Total crustaceans (Nauplii not included)	24 787.4 ± 1 103.2	22 180.5 ± 1 951.9	1.12	1.22	0.300
Total rotifers	38 635.6 ± 4 366.4	0[a]	-	8.85	= 0***
Total zooplankton (crustaceans and rotifers)	55 859.2 ± 4 877.5	22 355.8 ± 1 973.3	2.95	10.68	= 0***

[a]Numbers of rotifers were too scarce to be enumerated, therefore, zero does not necessarily indicate no rotifers were retained by the large net.

*Difference significant at 5% level.
**Difference significant at 1% level.
***Difference significant at 0.1% level.



Z(m)	A_i (10^4 m^2)	V_{i-j} (10^5 m^3)
0	25.92	
3	21.85	7.16
6	18.19	6.00
9	14.47	4.89
12	12.15	3.99
15	9.43	3.23
18	6.27	2.34
21	3.24	1.40
24	1.87	0.757
27	0.25	0.280
27.4	0.00	0.003
		Σ = 30.050

Fig. 1. Bathymetric map of Lake 224, Experimental Lakes Area, Ontario. Circled numbers indicate locations of zooplankton sampling stations. Z is lake depth, A is surface area of the indicated lake stratum and V is its volume. (Modified from Quay et al. 1978).

Appendix 1

Abundance as individuals m^{-3} of zooplankton species or life stages on each sampling date for the years 1974 to 1978. Abundance is shown for each sampling layer during periods of thermal stratification or for the entire water column during non-stratification. The depth limits of each sampling layer are included. The results of sampling the entire water column are shown in the "upper" column of the table. Dashes indicate no sample was taken; zeros indicate no animals were counted in the subsamples.

a. Cladocera

DAPHNIA GALEATA MENDOTAE X THORATA

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			87		
JUN 19	0- 3		6- 24	249		66
JUL 17	0- 6		9- 24	0		774
AUG 14	0- 6		9- 24	154		309
SEP 11	0- 9		12- 24	348		835
OCT 9	0- 12		15- 24	92		464
NOV 6	**0- 24			0		
1975						
JUN 2	0- 2	---	---	81	---	---
JUN 30	0- 2	---	---	0	---	---
JUL 28	0- 2	---	---	0	---	---
AUG 25	0- 2	---	---	0	---	---
SEP 22	0- 2	---	---	164	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	0	0	2852
JUL 26	0- 5	5- 10	10- 15	0	610	2851
JUL 29	0- 5	5- 10	10- 15	0	610	4073
AUG 5	0- 5	5- 10	10- 15	120	633	2238
AUG 12	0- 5	5- 10	10- 15	0	1832	3259
AUG 19	0- 5	5- 10	10- 15	0	1425	4073
AUG 26	0- 5	5- 10	10- 15	0	1018	8148
SEP 2	0- 5	5- 10	10- 15	0	1222	8555
SEP 9	0- 5	5- 10	10- 15	0	1493	8963
SEP 16	0- 5	5- 10	10- 15	0	746	4855
SEP 30	0- 5	5- 10	10- 15	0	1493	5601
OCT 14	0- 5	5- 10	10- 15	1119	1492	373
OCT 28	0- 5	5- 10	10- 15	373	373	1867
DEC 13	0- 5	5- 10	10- 15	0	0	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	0	0	0
MAR 28	0- 5	5- 10	10- 15	0	0	0
MAY 16	0- 5	5- 10	10- 15	0	0	497
JUN 16	0- 5	5- 10	10- 15	373	746	3734
JUL 21	0- 5	5- 10	10- 15	0	1493	11204
AUG 25	0- 5	5- 10	10- 15	0	2240	7095
SEP 29	0- 10			559		
NOV 1	0- 15			0		
DEC 15	0- 5		5- 15	0		0
1976						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	0		0
JUN 22	0- 5		5- 11	373		933
JUL 20	0- 5		5- 15	1119		1866
AUG 17	0- 5		5- 15	0		3547
SEP 14	0- 9		9- 13	829		1866
OCT 24	**0- 25			522		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

BOSMINA LONGIROSTRIS

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			0		
JUN 19	0- 3		6- 24	249		0
JUL 17	0- 6		9- 24	139		77
AUG 14	0- 6		9- 24	309		154
SEP 11	0- 9		12- 24	2090		92
OCT 9	0- 12		15- 24	0		0
NOV 6	**0- 24			0		
1975						
JUN 2	0- 2	---	---	0	---	---
JUN 30	0- 2	---	---	249	---	---
JUL 28	0- 2	---	---	0	---	---
AUG 25	0- 2	---	---	263	---	---
SEP 22	0- 2	---	---	109	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	618	1056	0
JUL 26	0- 5	5- 10	10- 15	611	0	0
JUL 29	0- 5	5- 10	10- 15	407	203	611
AUG 5	0- 5	5- 10	10- 15	120	475	0
AUG 12	0- 5	5- 10	10- 15	203	611	0
AUG 19	0- 5	5- 10	10- 15	611	2037	0
AUG 26	0- 5	5- 10	10- 15	611	2648	0
SEP 2	0- 5	5- 10	10- 15	2037	2240	1018
SEP 9	0- 5	5- 10	10- 15	1120	3361	0
SEP 16	0- 5	5- 10	10- 15	0	3734	0
SEP 30	0- 5	5- 10	10- 15	746	2614	0
OCT 14	0- 5	5- 10	10- 15	1493	0	1867
OCT 28	0- 5	5- 10	10- 15	0	1493	0
DEC 13	0- 5	5- 10	10- 15	0	0	373
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	373
MAR 2	0- 5	5- 10	10- 15	0	0	0
MAR 28	0- 5	5- 10	10- 15	0	0	0
MAY 16	0- 5	5- 10	10- 15	0	746	0
JUN 16	0- 5	5- 10	10- 15	1120	0	0
JUL 21	0- 5	5- 10	10- 15	1867	746	0
AUG 25	0- 5	5- 10	10- 15	1867	1867	0
SEP 29	0- 10			1307		
NOV 1	0- 15			373		
DEC 15	0- 5		5- 15	1867		186
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	0		0
JUN 22	0- 5		5- 11	1867		0
JUL 20	0- 5		5- 15	746		0
AUG 17	0- 5		5- 15	746		746
SEP 14	0- 9		9- 13	829		0
OCT 24	**0- 25			0		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

DIAPHANOSOMA BRACHYURUM

1974	*Sampling Layer (Metres) Upper	Middle	Lower	# Individuals per M^3 Upper	Middle	Lower
MAY 22	**0- 21			0		
JUN 19	0- 3		6- 24	0		66
JUL 17	0- 6		9- 24	0		464
AUG 14	0- 6		9- 24	774		77
SEP 11	0- 9		12- 24	346		0
OCT 9	0- 12		15- 24	0		0
NOV 6	**0- 24			0		
1975						
JUN 2	0- 2	---	---	0	---	---
JUN 30	0- 2	---	---	0	---	---
JUL 28	0- 2	---	---	274	---	---
AUG 25	0- 2	---	---	0	---	---
SEP 22	0- 2	---	---	54	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	123	4376	0
JUL 26	0- 5	5- 10	10- 15	0	1629	1222
JUL 29	0- 5	5- 10	10- 15	203	3870	0
AUG 5	0- 5	5- 10	10- 15	0	3644	0
AUG 12	0- 5	5- 10	10- 15	0	0	611
AUG 19	0- 5	5- 10	10- 15	0	0	3666
AUG 26	0- 5	5- 10	10- 15	0	2852	203
SEP 2	0- 5	5- 10	10- 15	0	2648	611
SEP 9	0- 5	5- 10	10- 15	0	1120	1867
SEP 16	0- 5	5- 10	10- 15	0	0	0
SEP 30	0- 5	5- 10	10- 15	373	0	373
OCT 14	0- 5	5- 10	10- 15	0	0	0
OCT 28	0- 5	5- 10	10- 15	0	0	0
DEC 13	0- 5	5- 10	10- 15	0	0	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	0	0	0
MAR 28	0- 5	5- 10	10- 15	0	0	0
MAY 16	0- 5	5- 10	10- 15	0	0	0
JUN 16	0- 5	5- 10	10- 15	746	746	0
JUL 21	0- 5	5- 10	10- 15	3734	4855	0
AUG 25	0- 5	5- 10	10- 15	0	1493	0
SEP 29	0- 10			0		
NOV 1	0- 15			0		
DEC 15	0- 5		5- 15	0		0
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	0		0
JUN 22	0- 5		5- 11	0		0
JUL 20	0- 5		5- 15	3734		4855
AUG 17	0- 5		5- 15	373		1680
SEP 14	0- 9		9- 13	207		1400
OCT 24	**0- 25			0		

*In 1974 samples were taken at 3m depth intervals.

**Entire water column.

KELLICOTTIA LONGISPINA

1974	*Sampling Layer (Metres) Upper	Middle	Lower	# Individuals per M^3 Upper	Middle	Lower
MAY 22	**0- 21			43		
JUN 19	0- 3		6- 24	499		139
JUL 17	0- 6		9- 24	139		77
AUG 14	0- 6		9- 24	0		0
SEP 11	0- 9		12- 24	0		0
OCT 9	0- 12		15- 24	0		0
NOV 6	**0- 24			0		
1975						
JUN 2	0- 2	---	---	0	---	---
JUN 30	0- 2	---	---	0	---	---
JUL 28	0- 2	---	---	0	---	---
AUG 25	0- 2	---	---	0	---	---
SEP 22	0- 2	---	---	0	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	0	0	0
JUL 26	0- 5	5- 10	10- 15	0	0	0
JUL 29	0- 5	5- 10	10- 15	0	0	0
AUG 5	0- 5	5- 10	10- 15	0	0	0
AUG 12	0- 5	5- 10	10- 15	0	0	0
AUG 19	0- 5	5- 10	10- 15	0	0	0
AUG 26	0- 5	5- 10	10- 15	0	0	0
SEP 2	0- 5	5- 10	10- 15	0	0	0
SEP 9	0- 5	5- 10	10- 15	0	0	0
SEP 16	0- 5	5- 10	10- 15	0	0	0
SEP 30	0- 5	5- 10	10- 15	0	0	0
OCT 14	0- 5	5- 10	10- 15	0	0	0
OCT 28	0- 5	5- 10	10- 15	0	0	0
DEC 13	0- 5	5- 10	10- 15	0	0	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	0	0	0
MAR 28	0- 5	5- 10	10- 15	0	0	0
MAY 16	0- 5	5- 10	10- 15	373	0	0
JUN 16	0- 5	5- 10	10- 15	0	0	0
JUL 21	0- 5	5- 10	10- 15	0		
AUG 25	0- 5	5- 10	10- 15	0		
SEP 29	0- 10			0		
NOV 1	0- 15			0		0
DEC 15	0- 5		5- 15			
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	0		0
JUN 22	0- 5		5- 11	0		0
JUL 20	0- 5		5- 15	0		0
AUG 17	0- 5		5- 15	0		0
SEP 14	0- 9		9- 13	0		
OCT 24	**0- 25			0		

*In 1974 samples were taken at 3m depth intervals.

**Entire water column.

b. Calanoid adults

c. Calanoid nauplii

d. Calanoid copepodids

e. Cyclopoid adults

f. Cyclopoid nauplii

g. Cyclopoid copepodids

DIAPTOMUS MINUTUS

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			0		
JUN 19	0- 3		6- 24	1997		398
JUL 17	0- 6		9- 24	1114		232
AUG 14	0- 6		9- 24	1238		851
SEP 11	0- 9		12- 24	3484		1207
OCT 9	0- 12		15- 24	3902		2671
NOV 6	**0- 24			2787		
1975						
JUN 2	0- 2	---	---	81	---	---
JUN 30	0- 2	---	---	4358	---	---
JUL 28	0- 2	---	---	0	---	---
AUG 25	0- 2	---	---	1054	---	---
SEP 22	0- 2	---	---	989	---	---
OCT 20	0- 2	---	---	1681	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	1608	5583	0
JUL 26	0- 5	5- 10	10- 15	0	1018	1222
JUL 29	0- 5	5- 10	10- 15	203	3055	0
AUG 5	0- 5	5- 10	10- 15	362	1742	159
AUG 12	0- 5	5- 10	10- 15	407	1018	0
AUG 19	0- 5	5- 10	10- 15	611	5704	0
AUG 26	0- 5	5- 10	10- 15	0	6315	0
SEP 2	0- 5	5- 10	10- 15	1426	4685	3259
SEP 9	0- 5	5- 10	10- 15	746	3734	4108
SEP 16	0- 5	5- 10	10- 15	373	4481	2987
SEP 30	0- 5	5- 10	10- 15	8590	0	1867
OCT 14	0- 5	5- 10	10- 15	6722	1120	0
OCT 28	0- 5	5- 10	10- 15	2987	2987	4108
DEC 13	0- 5	5- 10	10- 15	2614	0	1493
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	0	746	0
MAR 28	0- 5	5- 10	10- 15	0	0	0
MAY 16	0- 5	5- 10	10- 15	0	0	0
JUN 16	0- 5	5- 10	10- 15	6722	1867	0
JUL 21	0- 5	5- 10	10- 15	746	5602	0
AUG 25	0- 5	5- 10	10- 15	0	1493	0
SEP 29	0- 10			560		
NOV 1	0- 15			746		
DEC 15	0- 5		5- 15	373		0
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	0		0
JUN 22	0- 5		5- 11	12325		1307
JUL 20	0- 5		5- 15	4108		0
AUG 17	0- 5		5- 15	1867		2334
SEP 14	0- 9		9- 13	1037		
OCT 24	**0- 25			1120		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

DIAPTOMUS SICILIS

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			609		
JUN 19	0- 3		6- 24	0		66
JUL 17	0- 6		9- 24	0		0
AUG 14	0- 6		9- 24	0		0
SEP 11	0- 9		12- 24	0		92
OCT 9	0- 12		15- 24	464		464
NOV 6	**0- 24			3458		
1975						
JUN 2	0- 2	---	---	0	---	---
JUN 30	0- 2	---	---	0	---	---
JUL 28	0- 2	---	---	0	---	---
AUG 25	0- 2	---	---	0	---	---
SEP 22	0- 2	---	---	0	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	0	0	203
JUL 26	0- 5	5- 10	10- 15	0	0	0
JUL 29	0- 5	5- 10	10- 15	0	0	203
AUG 5	0- 5	5- 10	10- 15	0	0	479
AUG 12	0- 5	5- 10	10- 15	0	0	611
AUG 19	0- 5	5- 10	10- 15	0	0	2852
AUG 26	0- 5	5- 10	10- 15	0	0	1629
SEP 2	0- 5	5- 10	10- 15	0	0	1629
SEP 9	0- 5	5- 10	10- 15	0	0	3361
SEP 16	0- 5	5- 10	10- 15	0	0	2614
SEP 30	0- 5	5- 10	10- 15	0	746	3361
OCT 14	0- 5	5- 10	10- 15	1120	1120	3361
OCT 28	0- 5	5- 10	10- 15	9337	8216	9710
DEC 13	0- 5	5- 10	10- 15	12698	22035	10084
1977						
JAN 25	0- 5	5- 10	10- 15	2240	19421	3361
MAR 2	0- 5	5- 10	10- 15	4108	2614	10084
MAR 28	0- 5	5- 10	10- 15	6349	6349	7096
MAY 16	0- 5	5- 10	10- 15	1120	1120	995
JUN 16	0- 5	5- 10	10- 15	0	0	0
JUL 21	0- 5	5- 10	10- 15	0	0	0
AUG 25	0- 5	5- 10	10- 15	0	373	1120
SEP 29	0- 10			186		
NOV 1	0- 15			4357		
DEC 15	0- 5		5- 15	14939		9897
1978						
JAN 12	0- 5		5- 15	8963		5042
FEB 13	0- 5		5- 15	37722		0
MAR 13	0- 5		5- 15	8963		6722
MAY 17	0- 4		4- 9	4201		5975
JUN 22	0- 5		5- 11	0		0
JUL 20	0- 5		5- 15	0		0
AUG 17	0- 5		5- 15	0		186
SEP 14	0- 9		9- 13	0		466
OCT 24	**0- 25			4855		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

EPISCHURA LACUSTRIS

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			0		
JUN 19	0- 3		6- 24	0		66
JUL 17	0- 6		9- 24	0		154
AUG 14	0- 6		9- 24	0		154
SEP 11	0- 9		12- 24	232		278
OCT 9	0- 12		15- 24	185		116
NOV 6	**0- 24			51		
1975						
JUN 2	0- 2	---	---	0	---	---
JUN 30	0- 2	---	---	0	---	---
JUL 28	0- 2	---	---	0	---	---
AUG 25	0- 2	---	---	0	---	---
SEP 22	0- 2	---	---	109	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	0	452	1018
JUL 26	0- 5	5- 10	10- 15	0	0	1018
JUL 29	0- 5	5- 10	10- 15	0	611	611
AUG 5	0- 5	5- 10	10- 15	0	475	479
AUG 12	0- 5	5- 10	10- 15	0	611	611
AUG 19	0- 5	5- 10	10- 15	0	203	1833
AUG 26	0- 5	5- 10	10- 15	0	0	203
SEP 2	0- 5	5- 10	10- 15	0	407	814
SEP 9	0- 5	5- 10	10- 15	0	746	373
SEP 16	0- 5	5- 10	10- 15	0	373	746
SEP 30	0- 5	5- 10	10- 15	0	1493	0
OCT 14	0- 5	5- 10	10- 15	1493	0	1120
OCT 26	0- 5	5- 10	10- 15	0	1120	0
DEC 13	0- 5	5- 10	10- 15	5975	746	1867
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	0	0	0
MAR 28	0- 5	5- 10	10- 15	0	0	0
MAY 16	0- 5	5- 10	10- 15	0	0	0
JUN 16	0- 5	5- 10	10- 15	0	0	373
JUL 21	0- 5	5- 10	10- 15	0	0	373
AUG 25	0- 5	5- 10	10- 15	0	373	0
SEP 29	0- 10			0		
NOV 1	0- 15			124		
DEC 15	0- 5		5- 15	1867		0
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	0		0
JUN 22	0- 5		5- 11	373		0
JUL 20	0- 5		5- 15	0		933
AUG 17	0- 5		5- 15	0		560
SEP 14	0- 9		9- 13	207		1867
OCT 24	**0- 25			298		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

CALANOIDA N1

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			609		
JUN 19	0- 3		6- 24	998		66
JUL 17	0- 6		9- 24	1533		309
AUG 14	0- 6		9- 24	929		542
SEP 11	0- 9		12- 24	0		0
OCT 9	0- 12		15- 24	0		0
NOV 6	**0- 24			0		
1975						
JUN 2	0- 2	---	---	162	---	---
JUN 30	0- 2	---	---	1868	---	---
JUL 28	0- 2	---	---	457	---	---
AUG 25	0- 2	---	---	0	---	---
SEP 22	0- 2	---	---	0	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	1113	3319	0
JUL 26	0- 5	5- 10	10- 15	814	407	0
JUL 29	0- 5	5- 10	10- 15	611	1222	0
AUG 5	0- 5	5- 10	10- 15	120	1267	0
AUG 12	0- 5	5- 10	10- 15	0	611	814
AUG 19	0- 5	5- 10	10- 15	407	0	407
AUG 26	0- 5	5- 10	10- 15	0	407	0
SEP 2	0- 5	5- 10	10- 15	0	0	0
SEP 9	0- 5	5- 10	10- 15	0	0	373
SEP 16	0- 5	5- 10	10- 15	0	0	0
SEP 30	0- 5	5- 10	10- 15	0	0	0
OCT 14	0- 5	5- 10	10- 15	0	0	0
OCT 28	0- 5	5- 10	10- 15	0	0	0
DEC 13	0- 5	5- 10	10- 15	0	0	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	746	373	1493
MAR 28	0- 5	5- 10	10- 15	1867	0	1493
MAY 16	0- 5	5- 10	10- 15	0	373	0
JUN 16	0- 5	5- 10	10- 15	373	0	373
JUL 21	0- 5	5- 10	10- 15	1120	0	373
AUG 25	0- 5	5- 10	10- 15	0	0	373
SEP 29	0- 10			0		
NOV 1	0- 15			0		
DEC 15	0- 5		5- 15	0		0
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	1867		0
MAR 13	0- 5		5- 15	1493		18674
MAY 17	0- 4		4- 9	2801		0
JUN 22	0- 5		5- 11	5975		0
JUL 20	0- 5		5- 15	0		373
AUG 17	0- 5		5- 15	373		0
SEP 14	0- 9		9- 13	207		0
OCT 24	**0- 25			0		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

CALANOIDA N2

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			740		
JUN 19	0- 3		6- 24	0		0
JUL 17	0- 6		9- 24	975		232
AUG 14	0- 6		9- 24	1084		232
SEP 11	0- 9		12- 24	0		0
OCT 9	0- 12		15- 24	0		0
NOV 6	**0- 24			0		
1975						
JUN 2	0- 2	---	---	81	---	---
JUN 30	0- 2	---	---	3238	---	---
JUL 28	0- 2	---	---	1465	---	---
AUG 25	0- 2	---	---	263	---	---
SEP 22	0- 2	---	---	0	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	1484	452	0
JUL 26	0- 5	5- 10	10- 15	2037	0	0
JUL 29	0- 5	5- 10	10- 15	2648	203	0
AUG 5	0- 5	5- 10	10- 15	603	1426	0
AUG 12	0- 5	5- 10	10- 15	611	203	611
AUG 19	0- 5	5- 10	10- 15	814	0	611
AUG 26	0- 5	5- 10	10- 15	407	203	0
SEP 2	0- 5	5- 10	10- 15	0	0	407
SEP 9	0- 5	5- 10	10- 15	0	746	0
SEP 16	0- 5	5- 10	10- 15	0	0	0
SEP 30	0- 5	5- 10	10- 15	0	0	0
OCT 14	0- 5	5- 10	10- 15	0	0	0
OCT 28	0- 5	5- 10	10- 15	0	0	0
DEC 13	0- 5	5- 10	10- 15	0	0	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	5975	7096	18674
MAR 28	0- 5	5- 10	10- 15	10831	8216	15686
MAY 16	0- 5	5- 10	10- 15	1120	1120	0
JUN 16	0- 5	5- 10	10- 15	1493	0	746
JUL 21	0- 5	5- 10	10- 15	1493	373	0
AUG 25	0- 5	5- 10	10- 15	0	0	746
SEP 29	0- 10			0		
NOV 1	0- 15			0		
DEC 15	0- 5		5- 15	0		0
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	1493		0
MAR 13	0- 5		5- 15	17927		11391
MAY 17	0- 4		4- 9	4668		0
JUN 22	0- 5		5- 11	5975		0
JUL 20	0- 5		5- 15	2240		0
AUG 17	0- 5		5- 15	0		1307
SEP 14	0- 9		9- 13	207		0
OCT 24	**0- 25			0		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

CALANOIDA N3

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			1001		
JUN 19	0- 3		6- 24	249		0
JUL 17	0- 6		9- 24	557		619
AUG 14	0- 6		9- 24	464		696
SEP 11	0- 9		12- 24	348		0
OCT 9	0- 12		15- 24	0		0
NOV 6	**0- 24			0		
1975						
JUN 2	0- 2	---	---	162	---	---
JUN 30	0- 2	---	---	3611	---	---
JUL 28	0- 2	---	---	1098	---	---
AUG 25	0- 2	---	---	131	---	---
SEP 22	0- 2	---	---	0	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	1113	603	0
JUL 26	0- 5	5- 10	10- 15	2240	1426	0
JUL 29	0- 5	5- 10	10- 15	2240	1629	0
AUG 5	0- 5	5- 10	10- 15	1569	0	0
AUG 12	0- 5	5- 10	10- 15	1222	0	0
AUG 19	0- 5	5- 10	10- 15	407	1426	0
AUG 26	0- 5	5- 10	10- 15	1629	0	0
SEP 2	0- 5	5- 10	10- 15	0	203	203
SEP 9	0- 5	5- 10	10- 15	0	746	0
SEP 16	0- 5	5- 10	10- 15	0	0	0
SEP 30	0- 5	5- 10	10- 15	0	0	0
OCT 14	0- 5	5- 10	10- 15	0	0	0
OCT 28	0- 5	5- 10	10- 15	0	0	0
DEC 13	0- 5	5- 10	10- 15	0	0	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	4481	10084	25397
MAR 28	0- 5	5- 10	10- 15	25770	23903	16060
MAY 16	0- 5	5- 10	10- 15	1120	4855	0
JUN 16	0- 5	5- 10	10- 15	1867	373	0
JUL 21	0- 5	5- 10	10- 15	2987	0	2240
AUG 25	0- 5	5- 10	10- 15	1120	0	373
SEP 29	0- 10			0		
NOV 1	0- 15			0		
DEC 15	0- 5		5- 15	0		0
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	1493		1867
MAY 17	0- 4		4- 9	3268		2614
JUN 22	0- 5		5- 11	4108		0
JUL 20	0- 5		5- 15	1493		0
AUG 17	0- 5		5- 15	1493		0
SEP 14	0- 9		9- 13	0		0
OCT 24	**0- 25			0		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

CALANOIDA N4

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			1480		
JUN 19	0- 3		6- 24	749		0
JUL 17	0- 6		9- 24	1811		77
AUG 14	0- 6		9- 24	464		309
SEP 11	0- 9		12- 24	0		0
OCT 9	0- 12		15- 24	0		0
NOV 6	**0- 24			0		
1975						
JUN 2	0- 2	---	---	162	---	---
JUN 30	0- 2	---	---	3238	---	---
JUL 28	0- 2	---	---	732	---	---
AUG 25	0- 2	---	---	263	---	---
SEP 22	0- 2	---	---	0	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	1856	0	0
JUL 26	0- 5	5- 10	10- 15	2240	1018	0
JUL 29	0- 5	5- 10	10- 15	2444	0	0
AUG 5	0- 5	5- 10	10- 15	1327	0	799
AUG 12	0- 5	5- 10	10- 15	1018	611	203
AUG 19	0- 5	5- 10	10- 15	407	814	0
AUG 26	0- 5	5- 10	10- 15	1222	203	0
SEP 2	0- 5	5- 10	10- 15	407	407	0
SEP 9	0- 5	5- 10	10- 15	373	0	0
SEP 16	0- 5	5- 10	10- 15	373	0	373
SEP 30	0- 5	5- 10	10- 15	0	0	0
OCT 14	0- 5	5- 10	10- 15	0	0	0
OCT 26	0- 5	5- 10	10- 15	0	0	0
DEC 13	0- 5	5- 10	10- 15	0	0	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	1120	746	4481
MAR 28	0- 5	5- 10	10- 15	7469	9710	2987
MAY 16	0- 5	5- 10	10- 15	746	1493	995
JUN 16	0- 5	5- 10	10- 15	5228	0	0
JUL 21	0- 5	5- 10	10- 15	4108	0	0
AUG 25	0- 5	5- 10	10- 15	746	0	0
SEP 29	0- 10			0		
NOV 1	0- 15			0		
DEC 15	0- 5		5- 15	0		0
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	6536		1867
JUN 22	0- 5		5- 11	746		622
JUL 20	0- 5		5- 15	2987		0
AUG 17	0- 5		5- 15	1493		0
SEP 14	0- 9		9- 13	0		0
OCT 24	**0- 25			0		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

CALANOIDA N5

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			1742		
JUN 19	0- 3		6- 24	0		0
JUL 17	0- 6		9- 24	696		387
AUG 14	0- 6		9- 24	619		387
SEP 11	0- 9		12- 24	0		0
OCT 9	0- 12		15- 24	0		0
NOV 6	**0- 24			0		
1975						
JUN 2	0- 2	---	---	81	---	---
JUN 30	0- 2	---	---	4234	---	---
JUL 28	0- 2	---	---	457	---	---
AUG 25	0- 2	---	---	527	---	---
SEP 22	0- 2	---	---	54	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	1608	0	0
JUL 26	0- 5	5- 10	10- 15	1018	203	0
JUL 29	0- 5	5- 10	10- 15	611	407	0
AUG 5	0- 5	5- 10	10- 15	724	0	639
AUG 12	0- 5	5- 10	10- 15	407	0	611
AUG 19	0- 5	5- 10	10- 15	203	203	0
AUG 26	0- 5	5- 10	10- 15	611	0	0
SEP 2	0- 5	5- 10	10- 15	203	203	203
SEP 9	0- 5	5- 10	10- 15	0	1493	0
SEP 16	0- 5	5- 10	10- 15	373	0	0
SEP 30	0- 5	5- 10	10- 15	0	0	0
OCT 14	0- 5	5- 10	10- 15	0	0	373
OCT 26	0- 5	5- 10	10- 15	0	0	0
DEC 13	0- 5	5- 10	10- 15	0	0	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	0	0	0
MAR 28	0- 5	5- 10	10- 15	1120	2614	0
MAY 16	0- 5	5- 10	10- 15	1493	0	497
JUN 16	0- 5	5- 10	10- 15	2987	0	0
JUL 21	0- 5	5- 10	10- 15	2240	1493	0
AUG 25	0- 5	5- 10	10- 15	746	0	0
SEP 29	0- 10			0		
NOV 1	0- 15			0		
DEC 15	0- 5		5- 15	0		0
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	8403		7469
JUN 22	0- 5		5- 11	0		311
JUL 20	0- 5		5- 15	1493		0
AUG 17	0- 5		5- 15	373		0
SEP 14	0- 9		9- 13	207		0
OCT 24	**0- 25			0		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

CALANOIDA N6

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			2700		
JUN 19	0- 3		6- 24	249		0
JUL 17	0- 6		9- 24	139		77
AUG 14	0- 6		9- 24	0		0
SEP 11	0- 9		12- 24	0		0
OCT 9	0- 12		15- 24	0		0
NOV 6	**0- 24			0		
1975						
JUN 2	0- 2	---	---	243	---	---
JUN 30	0- 2	---	---	2864	---	---
JUL 28	0- 2	---	---	183	---	---
AUG 25	0- 2	---	---	263	---	---
SEP 22	0- 2	---	---	54	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	866	0	0
JUL 26	0- 5	5- 10	10- 15	407	0	0
JUL 29	0- 5	5- 10	10- 15	407	0	0
AUG 5	0- 5	5- 10	10- 15	120	158	479
AUG 12	0- 5	5- 10	10- 15	203	407	0
AUG 19	0- 5	5- 10	10- 15	0	407	203
AUG 26	0- 5	5- 10	10- 15	203	203	0
SEP 2	0- 5	5- 10	10- 15	611	0	0
SEP 9	0- 5	5- 10	10- 15	0	0	0
SEP 16	0- 5	5- 10	10- 15	373	0	0
SEP 30	0- 5	5- 10	10- 15	0	373	0
OCT 14	0- 5	5- 10	10- 15	0	0	373
OCT 28	0- 5	5- 10	10- 15	0	0	0
DEC 13	0- 5	5- 10	10- 15	0	0	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	0	0	0
MAR 28	0- 5	5- 10	10- 15	0	0	0
MAY 16	0- 5	5- 10	10- 15	5602	0	0
JUN 16	0- 5	5- 10	10- 15	373	373	373
JUL 21	0- 5	5- 10	10- 15	2987	0	2614
AUG 25	0- 5	5- 10	10- 15	1120	0	0
SEP 29	0- 10			0		
NOV 1	0- 15			0		
DEC 15	0- 5		5- 15	0		0
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	11204		8963
JUN 22	0- 5		5- 11	0		0
JUL 20	0- 5		5- 15	1120		0
AUG 17	0- 5		5- 15	0		0
SEP 14	0- 9		9- 13	0		0
OCT 24	**0- 25			0		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

CALANOIDA C1

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			10276		
JUN 19	0- 3		6- 24	0		66
JUL 17	0- 6		9- 24	836		232
AUG 14	0- 6		9- 24	1238		77
SEP 11	0- 9		12- 24	232		0
OCT 9	0- 12		15- 24	0		0
NOV 6	**0- 24			0		
1975						
JUN 2	0- 2	---	---	1219	---	---
JUN 30	0- 2	---	---	871	---	---
JUL 28	0- 2	---	---	0	---	---
AUG 25	0- 2	---	---	527	---	---
SEP 22	0- 2	---	---	0	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	1732	1207	0
JUL 26	0- 5	5- 10	10- 15	2037	814	0
JUL 29	0- 5	5- 10	10- 15	1018	407	611
AUG 5	0- 5	5- 10	10- 15	120	1584	0
AUG 12	0- 5	5- 10	10- 15	1222	0	0
AUG 19	0- 5	5- 10	10- 15	1426	0	1018
AUG 26	0- 5	5- 10	10- 15	1222	0	407
SEP 2	0- 5	5- 10	10- 15	407	0	203
SEP 9	0- 5	5- 10	10- 15	0	746	0
SEP 16	0- 5	5- 10	10- 15	0	0	0
SEP 30	0- 5	5- 10	10- 15	0	0	0
OCT 14	0- 5	5- 10	10- 15	0	0	0
OCT 28	0- 5	5- 10	10- 15	373	0	0
DEC 13	0- 5	5- 10	10- 15	0	0	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	0	0	0
MAR 28	0- 5	5- 10	10- 15	0	0	0
MAY 16	0- 5	5- 10	10- 15	5975	1867	0
JUN 16	0- 5	5- 10	10- 15	373	0	0
JUL 21	0- 5	5- 10	10- 15	1120	746	0
AUG 25	0- 5	5- 10	10- 15	746	0	0
SEP 29	0- 10			0		
NOV 1	0- 15			0		
DEC 15	0- 5		5- 15	0		0
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	33614		3734
JUN 22	0- 5		5- 11	373		0
JUL 20	0- 5		5- 15	2614		0
AUG 17	0- 5		5- 15	1493		0
SEP 14	0- 9		9- 13	414		0
OCT 24	**0- 25			0		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

CALANOIDA C2

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			522		
JUN 19	0- 3		6- 24	249		66
JUL 17	0- 6		9- 24	975		542
AUG 14	0- 6		9- 24	309		154
SEP 11	0- 9		12- 24	348		0
OCT 9	0- 12		15- 24	185		0
NOV 6	**0- 24			0		
1975						
JUN 2	0- 2	---	---	1788	---	---
JUN 30	0- 2	---	---	0	---	---
JUL 28	0- 2	---	---	91	---	---
AUG 25	0- 2	---	---	659	---	---
SEP 22	0- 2	---	---	164	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	866	2565	0
JUL 26	0- 5	5- 10	10- 15	1222	3463	0
JUL 29	0- 5	5- 10	10- 15	1222	1629	0
AUG 5	0- 5	5- 10	10- 15	724	1742	0
AUG 12	0- 5	5- 10	10- 15	611	611	0
AUG 19	0- 5	5- 10	10- 15	407	1018	0
AUG 26	0- 5	5- 10	10- 15	611	407	0
SEP 2	0- 5	5- 10	10- 15	203	1018	0
SEP 9	0- 5	5- 10	10- 15	746	0	746
SEP 16	0- 5	5- 10	10- 15	0	0	0
SEP 30	0- 5	5- 10	10- 15	0	373	0
OCT 14	0- 5	5- 10	10- 15	0	0	0
OCT 28	0- 5	5- 10	10- 15	0	0	0
DEC 13	0- 5	5- 10	10- 15	0	0	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	0	0	0
MAR 28	0- 5	5- 10	10- 15	0	0	0
MAY 16	0- 5	5- 10	10- 15	6722	2614	497
JUN 16	0- 5	5- 10	10- 15	0	0	0
JUL 21	0- 5	5- 10	10- 15	1493	2987	0
AUG 25	0- 5	5- 10	10- 15	1867	0	0
SEP 29	0- 10			0		
NOV 1	0- 15			0		
DEC 15	0- 5		5- 15	0		0
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	1867		373
JUN 22	0- 5		5- 11	373		0
JUL 20	0- 5		5- 15	2240		8
AUG 17	0- 5		5- 15	1493		186
SEP 14	0- 9		9- 13	414		0
OCT 24	**0- 25			0		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

CALANOIDA C3

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			130		
JUN 19	0- 3		6- 24	249		796
JUL 17	0- 6		9- 24	1254		1236
AUG 14	0- 6		9- 24	929		542
SEP 11	0- 9		12- 24	0		0
OCT 9	0- 12		15- 24	0		0
NOV 6	**0- 24			0		
1975						
JUN 2	0- 2	---	---	4634	---	---
JUN 30	0- 2	---	---	373	---	---
JUL 28	0- 2	---	---	0	---	---
AUG 25	0- 2	---	---	527	---	---
SEP 22	0- 2	---	---	0	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	618	4979	0
JUL 26	0- 5	5- 10	10- 15	407	5907	0
JUL 29	0- 5	5- 10	10- 15	1222	2648	0
AUG 5	0- 5	5- 10	10- 15	845	1742	0
AUG 12	0- 5	5- 10	10- 15	611	1629	0
AUG 19	0- 5	5- 10	10- 15	1018	0	203
AUG 26	0- 5	5- 10	10- 15	611	814	0
SEP 2	0- 5	5- 10	10- 15	814	0	1222
SEP 9	0- 5	5- 10	10- 15	746	0	0
SEP 16	0- 5	5- 10	10- 15	0	373	0
SEP 30	0- 5	5- 10	10- 15	373	0	0
OCT 14	0- 5	5- 10	10- 15	0	0	0
OCT 28	0- 5	5- 10	10- 15	0	0	0
DEC 13	0- 5	5- 10	10- 15	0	0	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	0	0	0
MAR 28	0- 5	5- 10	10- 15	0	0	0
MAY 16	0- 5	5- 10	10- 15	746	7469	20915
JUN 16	0- 5	5- 10	10- 15	373	373	0
JUL 21	0- 5	5- 10	10- 15	1120	746	0
AUG 25	0- 5	5- 10	10- 15	1867	0	0
SEP 29	0- 10			0		
NOV 1	0- 15			0		
DEC 15	0- 5		5- 15	0		0
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	0		0
JUN 22	0- 5		5- 11	746		622
JUL 20	0- 5		5- 15	1120		186
AUG 17	0- 5		5- 15	373		186
SEP 14	0- 9		9- 13	0		0
OCT 24	**0- 25			0		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

CALANOIDA C4

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			0		
JUN 19	0- 3		6- 24	499		6039
JUL 17	0- 6		9- 24	418		4336
AUG 14	0- 6		9- 24	619		2400
SEP 11	0- 9		12- 24	232		464
OCT 9	0- 12		15- 24	0		232
NOV 6	**0- 24			0		
1975						
JUN 2	0- 2	---	---	6666	---	---
JUN 30	0- 2	---	---	249	---	---
JUL 28	0- 2	---	---	0	---	---
AUG 25	0- 2	---	---	395	---	---
SEP 22	0- 2	---	---	274	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	247	5432	22205
JUL 26	0- 5	5- 10	10- 15	0	8352	20575
JUL 29	0- 5	5- 10	10- 15	407	5500	17316
AUG 5	0- 5	5- 10	10- 15	724	6813	4638
AUG 12	0- 5	5- 10	10- 15	203	6315	1222
AUG 19	0- 5	5- 10	10- 15	611	3870	2037
AUG 26	0- 5	5- 10	10- 15	0	2648	2648
SEP 2	0- 5	5- 10	10- 15	407	1018	2648
SEP 9	0- 5	5- 10	10- 15	0	1493	2240
SEP 16	0- 5	5- 10	10- 15	373	1867	0
SEP 30	0- 5	5- 10	10- 15	373	373	373
OCT 14	0- 5	5- 10	10- 15	0	0	373
OCT 28	0- 5	5- 10	10- 15	373	0	0
DEC 13	0- 5	5- 10	10- 15	0	0	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	0	0	0
MAR 28	0- 5	5- 10	10- 15	0	0	0
MAY 16	0- 5	5- 10	10- 15	373	1867	0
JUN 16	0- 5	5- 10	10- 15	746	10831	51168
JUL 21	0- 5	5- 10	10- 15	0	14939	30626
AUG 25	0- 5	5- 10	10- 15	2240	0	1867
SEP 29	0- 10			0		
NOV 1	0- 15			0		
DEC 15	0- 5		5- 15	0	0	0
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	0		0
JUN 22	0- 5		5- 11	373		21475
JUL 20	0- 5		5- 15	1493		30065
AUG 17	0- 5		5- 15	1120		7843
SEP 14	0- 9		9- 13	0		0
OCT 24	**0- 25			0		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

CALONOIDA C5

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			43		
JUN 19	0- 3		6- 24	249		4313
JUL 17	0- 6		9- 24	139		1858
AUG 14	0- 6		9- 24	464		8207
SEP 11	0- 9		12- 24	1045		5946
OCT 9	0- 12		15- 24	1858		3135
NOV 6	**0- 24			258		
1975						
JUN 2	0- 2	---	---	731	---	---
JUN 30	0- 2	---	---	249	---	---
JUL 28	0- 2	---	---	0	---	---
AUG 25	0- 2	---	---	131	---	---
SEP 22	0- 2	---	---	384	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	0	1810	19149
JUL 26	0- 5	5- 10	10- 15	0	2444	17520
JUL 29	0- 5	5- 10	10- 15	0	3666	25465
AUG 5	0- 5	5- 10	10- 15	0	3644	16955
AUG 12	0- 5	5- 10	10- 15	203	8760	39114
AUG 19	0- 5	5- 10	10- 15	814	7333	34836
AUG 26	0- 5	5- 10	10- 15	0	7130	35854
SEP 2	0- 5	5- 10	10- 15	1018	3259	42985
SEP 9	0- 5	5- 10	10- 15	746	746	47806
SEP 16	0- 5	5- 10	10- 15	0	2240	38842
SEP 30	0- 5	5- 10	10- 15	746	2240	35854
OCT 14	0- 5	5- 10	10- 15	9337	5602	6349
OCT 28	0- 5	5- 10	10- 15	1120	4108	373
DEC 13	0- 5	5- 10	10- 15	0	0	373
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	0	0	0
MAR 28	0- 5	5- 10	10- 15	0	0	0
MAY 16	0- 5	5- 10	10- 15	0	0	0
JUN 16	0- 5	5- 10	10- 15	1120	2240	2987
JUL 21	0- 5	5- 10	10- 15	0	3361	13819
AUG 25	0- 5	5- 10	10- 15	4108	0	38842
SEP 29	0- 10			186		
NOV 1	0- 15			622		
DEC 15	0- 5		5- 15	0		0
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	0		0
JUN 22	0- 5		5- 11	1120		1244
JUL 20	0- 5		5- 15	1120		2054
AUG 17	0- 5		5- 15	1493		16620
SEP 14	0- 9		9- 13	207		27077
OCT 24	**0- 25			0		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

CYCLOPS BICUSPIDATUS THOM.

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			87		
JUN 19	0- 3		6- 24	0		1194
JUL 17	0- 6		9- 24	0		1238
AUG 14	0- 6		9- 24	0		1471
SEP 11	0- 9		12- 24	0		1022
OCT 9	0- 12		15- 24	0		232
NOV 6	**0- 24			103		
1975						
JUN 2	0- 2	---	---	0	---	---
JUN 30	0- 2	---	---	0	---	---
JUL 28	0- 2	---	---	0	---	---
AUG 25	0- 2	---	---	0	---	---
SEP 22	0- 2	---	---	0	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	0	0	7741
JUL 26	0- 5	5- 10	10- 15	0	0	4074
JUL 29	0- 5	5- 10	10- 15	0	0	4481
AUG 5	0- 5	5- 10	10- 15	0	0	3519
AUG 12	0- 5	5- 10	10- 15	0	0	4481
AUG 19	0- 5	5- 10	10- 15	0	0	4685
AUG 26	0- 5	5- 10	10- 15	0	203	1629
SEP 2	0- 5	5- 10	10- 15	0	0	2444
SEP 9	0- 5	5- 10	10- 15	0	0	373
SEP 16	0- 5	5- 10	10- 15	0	0	1120
SEP 30	0- 5	5- 10	10- 15	0	0	0
OCT 14	0- 5	5- 10	10- 15	373	0	0
OCT 28	0- 5	5- 10	10- 15	0	373	0
DEC 13	0- 5	5- 10	10- 15	1493	2240	5975
1977						
JAN 25	0- 5	5- 10	10- 15	373	2240	0
MAR 2	0- 5	5- 10	10- 15	1493	0	746
MAR 28	0- 5	5- 10	10- 15	0	1120	0
MAY 16	0- 5	5- 10	10- 15	0	0	497
JUN 16	0- 5	5- 10	10- 15	0	1493	2614
JUL 21	0- 5	5- 10	10- 15	0	1493	4481
AUG 25	0- 5	5- 10	10- 15	0	0	2614
SEP 29	0- 10			0		
NOV 1	0- 15			0		
DEC 15	0- 5		5- 15	4855		0
1978						
JAN 12	0- 5		5- 15	746		933
FEB 13	0- 5		5- 15	5602		0
MAR 13	0- 5		5- 15	373		0
MAY 17	0- 4		4- 9	0		1867
JUN 22	0- 5		5- 11	0		2801
JUL 20	0- 5		5- 15	0		3734
AUG 17	0- 5		5- 15	0		3361
SEP 14	0- 9		9- 13	0		0
OCT 24	**0- 25			522		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

TROPOCYCLOPS PRASINUS MEX.

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			87		
JUN 19	0- 3		6- 24	249		0
JUL 17	0- 6		9- 24	0		0
AUG 14	0- 6		9- 24	0		309
SEP 11	0- 9		12- 24	464		92
OCT 9	0- 12		15- 24	185		232
NOV 6	**0- 24			51		
1975						
JUN 2	0- 2	---	---	0	---	---
JUN 30	0- 2	---	---	124	---	---
JUL 28	0- 2	---	---	0	---	---
AUG 25	0- 2	---	---	131	---	---
SEP 22	0- 2	---	---	109	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	0	1207	0
JUL 26	0- 5	5- 10	10- 15	0	814	0
JUL 29	0- 5	5- 10	10- 15	611	1222	0
AUG 5	0- 5	5- 10	10- 15	120	1901	0
AUG 12	0- 5	5- 10	10- 15	611	203	611
AUG 19	0- 5	5- 10	10- 15	203	1629	814
AUG 26	0- 5	5- 10	10- 15	0	1833	0
SEP 2	0- 5	5- 10	10- 15	0	407	1018
SEP 9	0- 5	5- 10	10- 15	373	746	373
SEP 16	0- 5	5- 10	10- 15	0	0	1493
SEP 30	0- 5	5- 10	10- 15	746	1120	0
OCT 14	0- 5	5- 10	10- 15	746	0	373
OCT 28	0- 5	5- 10	10- 15	0	1867	0
DEC 13	0- 5	5- 10	10- 15	0	0	746
1977						
JAN 25	0- 5	5- 10	10- 15	373	0	746
MAR 2	0- 5	5- 10	10- 15	373	0	0
MAR 28	0- 5	5- 10	10- 15	746	0	746
MAY 16	0- 5	5- 10	10- 15	746	373	0
JUN 16	0- 5	5- 10	10- 15	0	0	0
JUL 21	0- 5	5- 10	10- 15	0	2240	0
AUG 25	0- 5	5- 10	10- 15	373	0	0
SEP 29	0- 10			186		
NOV 1	0- 15			373		
DEC 15	0- 5		5- 15	0		186
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	373		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	0		0
JUN 22	0- 5		5- 11	0		0
JUL 20	0- 5		5- 15	373		560
AUG 17	0- 5		5- 15	373		373
SEP 14	0- 9		9- 13	622		0
OCT 24	**0- 25			448		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

CYCLOPOIDA N1

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			609		
JUN 19	0- 3		6- 24	499		66
JUL 17	0- 6		9- 24	2648		851
AUG 14	0- 6		9- 24	929		1316
SEP 11	0- 9		12- 24	696		2694
OCT 9	0- 12		15- 24	836		10801
NOV 6	**0- 24			5729		
1975						
JUN 2	0- 2	---	---	243	---	---
JUN 30	0- 2	---	---	0	---	---
JUL 28	0- 2	---	---	91	---	---
AUG 25	0- 2	---	---	131	---	---
SEP 22	0- 2	---	---	0	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	371	905	0
JUL 26	0- 5	5- 10	10- 15	611	0	0
JUL 29	0- 5	5- 10	10- 15	203	407	203
AUG 5	0- 5	5- 10	10- 15	0	316	479
AUG 12	0- 5	5- 10	10- 15	203	407	2037
AUG 19	0- 5	5- 10	10- 15	0	1222	0
AUG 26	0- 5	5- 10	10- 15	611	0	407
SEP 2	0- 5	5- 10	10- 15	0	611	814
SEP 9	0- 5	5- 10	10- 15	373	0	1493
SEP 16	0- 5	5- 10	10- 15	0	0	373
SEP 30	0- 5	5- 10	10- 15	0	0	373
OCT 14	0- 5	5- 10	10- 15	0	0	0
OCT 28	0- 5	5- 10	10- 15	2614	746	746
DEC 13	0- 5	5- 10	10- 15	0	0	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	0	373	0
MAR 28	0- 5	5- 10	10- 15	0	1493	2240
MAY 16	0- 5	5- 10	10- 15	0	373	2987
JUN 16	0- 5	5- 10	10- 15	373	1120	0
JUL 21	0- 5	5- 10	10- 15	1120	0	2240
AUG 25	0- 5	5- 10	10- 15	746	0	746
SEP 29	0- 10			0		
NOV 1	0- 15			248		
DEC 15	0- 5		5- 15	0		0
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	373		0
MAR 13	0- 5		5- 15	373		933
MAY 17	0- 4		4- 9	466		2614
JUN 22	0- 5		5- 11	373		0
JUL 20	0- 5		5- 15	1120		746
AUG 17	0- 5		5- 15	0		933
SEP 14	0- 9		9- 13	0		1400
OCT 24	**0- 25			2016		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

CYCLOPOIDA N2

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			479		
JUN 19	0- 3		6- 24	0		0
JUL 17	0- 6		9- 24	696		464
AUG 14	0- 6		9- 24	154		387
SEP 11	0- 9		12- 24	232		1300
OCT 9	0- 12		15- 24	464		3019
NOV 6	**0- 24			2477		
1975						
JUN 2	0- 2	---	---	81	---	---
JUN 30	0- 2	---	---	0	---	---
JUL 28	0- 2	---	---	0	---	---
AUG 25	0- 2	---	---	527	---	---
SEP 22	0- 2	---	---	0	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	866	0	1222
JUL 26	0- 5	5- 10	10- 15	203	1222	0
JUL 29	0- 5	5- 10	10- 15	0	1018	0
AUG 5	0- 5	5- 10	10- 15	482	0	0
AUG 12	0- 5	5- 10	10- 15	0	611	1426
AUG 19	0- 5	5- 10	10- 15	0	611	1222
AUG 26	0- 5	5- 10	10- 15	203	1018	1222
SEP 2	0- 5	5- 10	10- 15	203	611	1222
SEP 9	0- 5	5- 10	10- 15	0	0	2987
SEP 16	0- 5	5- 10	10- 15	0	373	0
SEP 30	0- 5	5- 10	10- 15	0	0	373
OCT 14	0- 5	5- 10	10- 15	0	0	0
OCT 28	0- 5	5- 10	10- 15	5602	4855	0
DEC 13	0- 5	5- 10	10- 15	0	373	373
1977						
JAN 25	0- 5	5- 10	10- 15	0	373	0
MAR 2	0- 5	5- 10	10- 15	373	2614	2987
MAR 28	0- 5	5- 10	10- 15	373	7096	1120
MAY 16	0- 5	5- 10	10- 15	373	1493	4979
JUN 16	0- 5	5- 10	10- 15	1120	1867	0
JUL 21	0- 5	5- 10	10- 15	1120	373	0
AUG 25	0- 5	5- 10	10- 15	1120	746	1120
SEP 29	0- 10			0		
NOV 1	0- 15			248		
DEC 15	0- 5		5- 15	0		1307
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	1120		0
MAR 13	0- 5		5- 15	1493		1493
MAY 17	0- 4		4- 9	466		2240
JUN 22	0- 5		5- 11	0		622
JUL 20	0- 5		5- 15	0		1493
AUG 17	0- 5		5- 15	746		1493
SEP 14	0- 9		9- 13	414		0
OCT 24	**0- 25			18375		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

CYCLOPOIDA N3

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			217		
JUN 19	0- 3		6- 24	0		66
JUL 17	0- 6		9- 24	418		77
AUG 14	0- 6		9- 24	0		154
SEP 11	0- 9		12- 24	232		557
OCT 9	0- 12		15- 24	0		2322
NOV 6	**0- 24			1548		
1975						
JUN 2	0- 2	---	---	81	---	---
JUN 30	0- 2	---	---	0	---	---
JUL 28	0- 2	---	---	91	---	---
AUG 25	0- 2	---	---	131	---	---
SEP 22	0- 2	---	---	219	---	---
OCT 20	0- 2	---	---	98	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	371	0	611
JUL 26	0- 5	5- 10	10- 15	0	407	0
JUL 29	0- 5	5- 10	10- 15	203	1018	0
AUG 5	0- 5	5- 10	10- 15	120	0	159
AUG 12	0- 5	5- 10	10- 15	407	814	0
AUG 19	0- 5	5- 10	10- 15	407	1222	203
AUG 26	0- 5	5- 10	10- 15	203	1222	0
SEP 2	0- 5	5- 10	10- 15	203	1222	203
SEP 9	0- 5	5- 10	10- 15	0	373	373
SEP 16	0- 5	5- 10	10- 15	0	373	0
SEP 30	0- 5	5- 10	10- 15	0	0	373
OCT 14	0- 5	5- 10	10- 15	0	0	373
OCT 28	0- 5	5- 10	10- 15	4855	4108	2614
DEC 13	0- 5	5- 10	10- 15	746	4481	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	3734	0
MAR 2	0- 5	5- 10	10- 15	2987	2240	7843
MAR 28	0- 5	5- 10	10- 15	6722	4481	5975
MAY 16	0- 5	5- 10	10- 15	1120	2240	2489
JUN 16	0- 5	5- 10	10- 15	746	0	1120
JUL 21	0- 5	5- 10	10- 15	0	1120	0
AUG 25	0- 5	5- 10	10- 15	746	373	2240
SEP 29	0- 10			0		
NOV 1	0- 15			373		
DEC 15	0- 5		5- 15	1120		3548
1978						
JAN 12	0- 5		5- 15	1120		746
FEB 13	0- 5		5- 15	3361		0
MAR 13	0- 5		5- 15	0		1680
MAY 17	0- 4		4- 9	933		1120
JUN 22	0- 5		5- 11	373		622
JUL 20	0- 5		5- 15	746		560
AUG 17	0- 5		5- 15	746		1867
SEP 14	0- 9		9- 13	0		0
OCT 24	**0- 25			29879		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

CYCLOPOIDA N4

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			217		
JUN 19	0- 3		6- 24	0		265
JUL 17	0- 6		9- 24	836		154
AUG 14	0- 6		9- 24	0		154
SEP 11	0- 9		12- 24	232		185
OCT 9	0- 12		15- 24	278		1161
NOV 6	**0- 24			980		
1975						
JUN 2	0- 2	---	---	81	---	---
JUN 30	0- 2	---	---	0	---	---
JUL 28	0- 2	---	---	91	---	---
AUG 25	0- 2	---	---	0	---	---
SEP 22	0- 2	---	---	384	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	0	150	1426
JUL 26	0- 5	5- 10	10- 15	0	814	0
JUL 29	0- 5	5- 10	10- 15	0	407	0
AUG 5	0- 5	5- 10	10- 15	0	158	0
AUG 12	0- 5	5- 10	10- 15	0	1018	0
AUG 19	0- 5	5- 10	10- 15	0	611	0
AUG 26	0- 5	5- 10	10- 15	203	814	203
SEP 2	0- 5	5- 10	10- 15	407	1018	0
SEP 9	0- 5	5- 10	10- 15	0	1493	0
SEP 16	0- 5	5- 10	10- 15	0	0	373
SEP 30	0- 5	5- 10	10- 15	746	0	373
OCT 14	0- 5	5- 10	10- 15	0	373	0
OCT 28	0- 5	5- 10	10- 15	1867	1493	3734
DEC 13	0- 5	5- 10	10- 15	3361	14192	8590
1977						
JAN 25	0- 5	5- 10	10- 15	1120	14192	0
MAR 2	0- 5	5- 10	10- 15	8963	373	7843
MAR 28	0- 5	5- 10	10- 15	5228	4108	10457
MAY 16	0- 5	5- 10	10- 15	746	1867	7469
JUN 16	0- 5	5- 10	10- 15	746	1493	0
JUL 21	0- 5	5- 10	10- 15	0	0	0
AUG 25	0- 5	5- 10	10- 15	2614	0	0
SEP 29	0- 10			0		
NOV 1	0- 15			373		
DEC 15	0- 5		5- 15	4108		5789
1978						
JAN 12	0- 5		5- 15	7843		1867
FEB 13	0- 5		5- 15	17927		0
MAR 13	0- 5		5- 15	10457		3174
MAY 17	0- 4		4- 9	933		3734
JUN 22	0- 5		5- 11	2240		0
JUL 20	0- 5		5- 15	746		746
AUG 17	0- 5		5- 15	0		560
SEP 14	0- 9		9- 13	622		0
OCT 24	**0- 25			12922		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

CYCLOPOIDA N5

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			435		
JUN 19	0- 3		6- 24	0		132
JUL 17	0- 6		9- 24	0		0
AUG 14	0- 6		9- 24	0		77
SEP 11	0- 9		12- 24	116		185
OCT 9	0- 12		15- 24	92		348
NOV 6	**0- 24			103		
1975						
JUN 2	0- 2	---	---	0	---	---
JUN 30	0- 2	---	---	0	---	---
JUL 28	0- 2	---	---	91	---	---
AUG 25	0- 2	---	---	131	---	---
SEP 22	0- 2	---	---	109	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	123	0	407
JUL 26	0- 5	5- 10	10- 15	0	611	0
JUL 29	0- 5	5- 10	10- 15	0	203	0
AUG 5	0- 5	5- 10	10- 15	0	0	0
AUG 12	0- 5	5- 10	10- 15	0	611	0
AUG 19	0- 5	5- 10	10- 15	0	203	0
AUG 26	0- 5	5- 10	10- 15	0	203	0
SEP 2	0- 5	5- 10	10- 15	407	0	0
SEP 9	0- 5	5- 10	10- 15	373	0	373
SEP 16	0- 5	5- 10	10- 15	0	373	0
SEP 30	0- 5	5- 10	10- 15	0	373	0
OCT 14	0- 5	5- 10	10- 15	0	0	373
OCT 28	0- 5	5- 10	10- 15	1493	0	0
DEC 13	0- 5	5- 10	10- 15	1493	3734	2987
1977						
JAN 25	0- 5	5- 10	10- 15	746	3734	2240
MAR 2	0- 5	5- 10	10- 15	6722	0	2987
MAR 28	0- 5	5- 10	10- 15	1493	1120	3734
MAY 16	0- 5	5- 10	10- 15	0	1867	4979
JUN 16	0- 5	5- 10	10- 15	373	746	373
JUL 21	0- 5	5- 10	10- 15	0	373	0
AUG 25	0- 5	5- 10	10- 15	0	746	0
SEP 29	0- 10			0		
NOV 1	0- 15			248		
DEC 15	0- 5		5- 15	6349		8216
1978						
JAN 12	0- 5		5- 15	6722		3921
FEB 13	0- 5		5- 15	16433		0
MAR 13	0- 5		5- 15	4481		1120
MAY 17	0- 4		4- 9	2334		4108
JUN 22	0- 5		5- 11	746		0
JUL 20	0- 5		5- 15	373		560
AUG 17	0- 5		5- 15	0		0
SEP 14	0- 9		9- 13	207		0
OCT 24	**0- 25			1195		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

CYCLOPOIDA N6

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			871		
JUN 19	0- 3		6- 24	0		0
JUL 17	0- 6		9- 24	139		0
AUG 14	0- 6		9- 24	0		0
SEP 11	0- 9		12- 24	0		0
OCT 9	0- 12		15- 24	185		0
NOV 6	**0- 24			0		
1975						
JUN 2	0- 2	---	---	0	---	---
JUN 30	0- 2	---	---	0	---	---
JUL 28	0- 2	---	---	0	---	---
AUG 25	0- 2	---	---	0	---	---
SEP 22	0- 2	---	---	0	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	0	0	0
JUL 26	0- 5	5- 10	10- 15	0	0	0
JUL 29	0- 5	5- 10	10- 15	0	0	0
AUG 5	0- 5	5- 10	10- 15	0	0	0
AUG 12	0- 5	5- 10	10- 15	0	0	0
AUG 19	0- 5	5- 10	10- 15	203	0	0
AUG 26	0- 5	5- 10	10- 15	0	0	0
SEP 2	0- 5	5- 10	10- 15	0	0	0
SEP 9	0- 5	5- 10	10- 15	0	0	0
SEP 16	0- 5	5- 10	10- 15	0	0	0
SEP 30	0- 5	5- 10	10- 15	0	0	0
OCT 14	0- 5	5- 10	10- 15	0	0	0
OCT 28	0- 5	5- 10	10- 15	0	0	0
DEC 13	0- 5	5- 10	10- 15	373	0	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	746	0
MAR 2	0- 5	5- 10	10- 15	746	373	0
MAR 28	0- 5	5- 10	10- 15	0	373	746
MAY 16	0- 5	5- 10	10- 15	0	373	0
JUN 16	0- 5	5- 10	10- 15	0	0	0
JUL 21	0- 5	5- 10	10- 15	0	0	0
AUG 25	0- 5	5- 10	10- 15	373	0	0
SEP 29	0- 10			0		
NOV 1	0- 15			0		
DEC 15	0- 5		5- 15	1493		2801
1978						
JAN 12	0- 5		5- 15	1120		746
FEB 13	0- 5		5- 15	3361		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	466		1867
JUN 22	0- 5		5- 11	0		0
JUL 20	0- 5		5- 15	746		186
AUG 17	0- 5		5- 15	0		186
SEP 14	0- 9		9- 13	0		0
OCT 24	**0- 25			149		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

CYCLOPOIDA C1

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			5487		
JUN 19	0- 3		6- 24	0		132
JUL 17	0- 6		9- 24	557		154
AUG 14	0- 6		9- 24	154		0
SEP 11	0- 9		12- 24	116		0
OCT 9	0- 12		15- 24	0		232
NOV 6	**0- 24			0		
1975						
JUN 2	0- 2	---	---	325	---	---
JUN 30	0- 2	---	---	124	---	---
JUL 28	0- 2	---	---	366	---	---
AUG 25	0- 2	---	---	263	---	---
SEP 22	0- 2	---	---	54	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	0	0	203
JUL 26	0- 5	5- 10	10- 15	203	0	407
JUL 29	0- 5	5- 10	10- 15	0	1018	0
AUG 5	0- 5	5- 10	10- 15	120	0	319
AUG 12	0- 5	5- 10	10- 15	203	0	0
AUG 19	0- 5	5- 10	10- 15	407	0	0
AUG 26	0- 5	5- 10	10- 15	203	0	407
SEP 2	0- 5	5- 10	10- 15	203	203	203
SEP 9	0- 5	5- 10	10- 15	0	0	0
SEP 16	0- 5	5- 10	10- 15	746	0	0
SEP 30	0- 5	5- 10	10- 15	0	0	0
OCT 14	0- 5	5- 10	10- 15	0	0	0
OCT 28	0- 5	5- 10	10- 15	0	0	0
DEC 13	0- 5	5- 10	10- 15	0	0	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	746
MAR 2	0- 5	5- 10	10- 15	0	373	0
MAR 28	0- 5	5- 10	10- 15	0	0	0
MAY 16	0- 5	5- 10	10- 15	1867	373	0
JUN 16	0- 5	5- 10	10- 15	1120	0	0
JUL 21	0- 5	5- 10	10- 15	373	0	0
AUG 25	0- 5	5- 10	10- 15	0	746	0
SEP 29	0- 10			0		
NOV 1	0- 15			0		
DEC 15	0- 5		5- 15	0		0
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	0		186
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	7469		746
JUN 22	0- 5		5- 11	746		0
JUL 20	0- 5		5- 15	0		0
AUG 17	0- 5		5- 15	0		0
SEP 14	0- 9		9- 13	207		0
OCT 24	**0- 25			0		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

CYCLOPOIDA C2

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			391		
JUN 19	0- 3		6- 24	249		66
JUL 17	0- 6		9- 24	418		77
AUG 14	0- 6		9- 24	0		0
SEP 11	0- 9		12- 24	0		0
OCT 9	0- 12		15- 24	0		116
NOV 6	**0- 24			0		
1975						
JUN 2	0- 2	---	---	1138	---	---
JUN 30	0- 2	---	---	124	---	---
JUL 28	0- 2	---	---	457	---	---
AUG 25	0- 2	---	---	0	---	---
SEP 22	0- 2	---	---	0	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	247	0	0
JUL 26	0- 5	5- 10	10- 15	0	611	0
JUL 29	0- 5	5- 10	10- 15	203	0	0
AUG 5	0- 5	5- 10	10- 15	120	158	0
AUG 12	0- 5	5- 10	10- 15	407	0	0
AUG 19	0- 5	5- 10	10- 15	203	0	0
AUG 26	0- 5	5- 10	10- 15	203	611	0
SEP 2	0- 5	5- 10	10- 15	0	0	407
SEP 9	0- 5	5- 10	10- 15	0	0	0
SEP 16	0- 5	5- 10	10- 15	373	0	746
SEP 30	0- 5	5- 10	10- 15	0	0	0
OCT 14	0- 5	5- 10	10- 15	0	0	0
OCT 28	0- 5	5- 10	10- 15	0	0	0
DEC 13	0- 5	5- 10	10- 15	0	373	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	373	0
MAR 2	0- 5	5- 10	10- 15	0	0	0
MAR 28	0- 5	5- 10	10- 15	0	0	0
MAY 16	0- 5	5- 10	10- 15	15313	7096	0
JUN 16	0- 5	5- 10	10- 15	373	0	0
JUL 21	0- 5	5- 10	10- 15	373	0	0
AUG 25	0- 5	5- 10	10- 15	0	0	0
SEP 29	0- 10			0		
NOV 1	0- 15			0		
DEC 15	0- 5		5- 15	0		0
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	3734		2614
JUN 22	0- 5		5- 11	373		0
JUL 20	0- 5		5- 15	0		186
AUG 17	0- 5		5- 15	0		0
SEP 14	0- 9		9- 13	0		0
OCT 24	**0- 25			0		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

CYCLOPOIDA C3

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			130		
JUN 19	0- 3		6- 24	0		199
JUL 17	0- 6		9- 24	278		154
AUG 14	0- 6		9- 24	0		0
SEP 11	0- 9		12- 24	0		0
OCT 9	0- 12		15- 24	0		116
NOV 6	**0- 24			0		
1975						
JUN 2	0- 2	---	---	1544	---	---
JUN 30	0- 2	---	---	0	---	---
JUL 28	0- 2	---	---	0	---	---
AUG 25	0- 2	---	---	0	---	---
SEP 22	0- 2	---	---	54	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	0	0	0
JUL 26	0- 5	5- 10	10- 15	0	0	611
JUL 29	0- 5	5- 10	10- 15	0	0	203
AUG 5	0- 5	5- 10	10- 15	0	158	0
AUG 12	0- 5	5- 10	10- 15	203	0	0
AUG 19	0- 5	5- 10	10- 15	0	0	0
AUG 26	0- 5	5- 10	10- 15	0	0	0
SEP 2	0- 5	5- 10	10- 15	0	0	0
SEP 9	0- 5	5- 10	10- 15	0	0	0
SEP 16	0- 5	5- 10	10- 15	0	0	0
SEP 30	0- 5	5- 10	10- 15	0	0	0
OCT 14	0- 5	5- 10	10- 15	0	0	0
OCT 28	0- 5	5- 10	10- 15	0	0	0
DEC 13	0- 5	5- 10	10- 15	0	0	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	0	0	0
MAR 28	0- 5	5- 10	10- 15	0	0	0
MAY 16	0- 5	5- 10	10- 15	8963	1120	0
JUN 16	0- 5	5- 10	10- 15	0	373	373
JUL 21	0- 5	5- 10	10- 15	0	0	0
AUG 25	0- 5	5- 10	10- 15	0	373	0
SEP 29	0- 10			0		
NOV 1	0- 15			0		
DEC 15	0- 5		5- 15	0		0
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	1400		373
JUN 22	0- 5		5- 11	0		0
JUL 20	0- 5		5- 15	0		0
AUG 17	0- 5		5- 15	0		0
SEP 14	0- 9		9- 13	0		0
OCT 24	**0- 25			224		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

CYCLOPOIDA C4

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			87		
JUN 19	0- 3		6- 24	249		995
JUL 17	0- 6		9- 24	278		232
AUG 14	0- 6		9- 24	0		154
SEP 11	0- 9		12- 24	116		0
OCT 9	0- 12		15- 24	0		0
NOV 6	**0- 24			361		
1975						
JUN 2	0- 2	---	---	2032	---	---
JUN 30	0- 2	---	---	0	---	---
JUL 28	0- 2	---	---	0	---	---
AUG 25	0- 2	---	---	0	---	---
SEP 22	0- 2	---	---	54	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	0	0	0
JUL 26	0- 5	5- 10	10- 15	0	0	203
JUL 29	0- 5	5- 10	10- 15	0	0	0
AUG 5	0- 5	5- 10	10- 15	0	158	0
AUG 12	0- 5	5- 10	10- 15	0	407	0
AUG 19	0- 5	5- 10	10- 15	0	0	0
AUG 26	0- 5	5- 10	10- 15	0	0	0
SEP 2	0- 5	5- 10	10- 15	0	0	0
SEP 9	0- 5	5- 10	10- 15	0	0	0
SEP 16	0- 5	5- 10	10- 15	0	0	0
SEP 30	0- 5	5- 10	10- 15	0	0	373
OCT 14	0- 5	5- 10	10- 15	0	0	373
OCT 28	0- 5	5- 10	10- 15	373	373	746
DEC 13	0- 5	5- 10	10- 15	0	0	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	0	0	0
MAR 28	0- 5	5- 10	10- 15	0	0	0
MAY 16	0- 5	5- 10	10- 15	3361	0	3485
JUN 16	0- 5	5- 10	10- 15	0	373	1493
JUL 21	0- 5	5- 10	10- 15	0	0	0
AUG 25	0- 5	5- 10	10- 15	0	0	0
SEP 29	0- 10			0		
NOV 1	0- 15			248		
DEC 15	0- 5		5- 15	0		0
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	466		373
JUN 22	0- 5		5- 11	0		311
JUL 20	0- 5		5- 15	0		0
AUG 17	0- 5		5- 15	373		0
SEP 14	0- 9		9- 13	0		0
OCT 24	**0- 25			2614		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

CYCLOPOIDA C5

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			43		
JUN 19	0- 3		6- 24	0		3185
JUL 17	0- 6		9- 24	278		387
AUG 14	0- 6		9- 24	0		309
SEP 11	0- 9		12- 24	232		92
OCT 9	0- 12		15- 24	0		116
NOV 6	**0- 24			361		
1975						
JUN 2	0- 2	---	---	569	---	---
JUN 30	0- 2	---	---	0	---	---
JUL 28	0- 2	---	---	0	---	---
AUG 25	0- 2	---	---	131	---	---
SEP 22	0- 2	---	---	164	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	0	150	611
JUL 26	0- 5	5- 10	10- 15	0	407	203
JUL 29	0- 5	5- 10	10- 15	203	0	1018
AUG 5	0- 5	5- 10	10- 15	0	633	
AUG 12	0- 5	5- 10	10- 15	0	407	0
AUG 19	0- 5	5- 10	10- 15	0	0	203
AUG 26	0- 5	5- 10	10- 15	0	0	0
SEP 2	0- 5	5- 10	10- 15	0	203	0
SEP 9	0- 5	5- 10	10- 15	0	373	0
SEP 16	0- 5	5- 10	10- 15	0	0	0
SEP 30	0- 5	5- 10	10- 15	0	0	0
OCT 14	0- 5	5- 10	10- 15	0	373	373
OCT 28	0- 5	5- 10	10- 15	373	2614	2987
DEC 13	0- 5	5- 10	10- 15	373	1867	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	0	0	0
MAR 28	0- 5	5- 10	10- 15	0	0	0
MAY 16	0- 5	5- 10	10- 15	0	1120	1991
JUN 16	0- 5	5- 10	10- 15	0	373	5228
JUL 21	0- 5	5- 10	10- 15	0	0	1493
AUG 25	0- 5	5- 10	10- 15	0	373	0
SEP 29	0- 10			0		
NOV 1	0- 15			1369		
DEC 15	0- 5		5- 15	2987		0
1978						
JAN 12	0- 5		5- 15	373		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	0		0
JUN 22	0- 5		5- 11	0		0
JUL 20	0- 5		5- 15	0		186
AUG 17	0- 5		5- 15	373		0
SEP 14	0- 9		9- 13	0		0
OCT 24	**0- 25			74		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

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CONOCHILUS UNICORNIS

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			130		
JUN 19	0- 3		6- 24	3745		1858
JUL 17	0- 6		9- 24	2508		1161
AUG 14	0- 6		9- 24	7742		0
SEP 11	0- 9		12- 24	232		0
OCT 9	0- 12		15- 24	650		2787
NOV 6	**0- 24			1084		
1975						
JUN 2	0- 2	---	---	0	---	---
JUN 30	0- 2	---	---	5728	---	---
JUL 28	0- 2	---	---	0	---	---
AUG 25	0- 2	---	---	0	---	---
SEP 22	0- 2	---	---	1703	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	12621		2240
JUL 26	0- 5	5- 10	10- 15	14260	2852	0
JUL 29	0- 5	5- 10	10- 15	15279	0	0
AUG 5	0- 5	5- 10	10- 15	5794	6021	0
AUG 12	0- 5	5- 10	10- 15	5296	0	2648
AUG 19	0- 5	5- 10	10- 15	4074	611	0
AUG 26	0- 5	5- 10	10- 15	3870	0	0
SEP 2	0- 5	5- 10	10- 15	10389	5093	0
SEP 9	0- 5	5- 10	10- 15	18300	13819	4481
SEP 16	0- 5	5- 10	10- 15	23903	22035	0
SEP 30	0- 5	5- 10	10- 15	7096	0	2987
OCT 14	0- 5	5- 10	10- 15	2614	5228	21662
OCT 28	0- 5	5- 10	10- 15	1867	1120	0
DEC 13	0- 5	5- 10	10- 15	0	0	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	1867
MAR 2	0- 5	5- 10	10- 15	0	0	1867
MAR 28	0- 5	5- 10	10- 15	0	746	1867
MAY 16	0- 5	5- 10	10- 15	8963	0	7469
JUN 16	0- 5	5- 10	10- 15	0	1120	26517
JUL 21	0- 5	5- 10	10- 15	2987	373	8963
AUG 25	0- 5	5- 10	10- 15	3734	0	1120
SEP 29	0- 10			0		
NOV 1	0- 15			622		
DEC 15	0- 5		5- 15	0		373
1978						
JAN 12	0- 5		5- 15	0		746
FEB 13	0- 5		5- 15	7096		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	2801		19794
JUN 22	0- 5		5- 11	17180		0
JUL 20	0- 5		5- 15	8216		1307
AUG 17	0- 5		5- 15	6349		933
SEP 14	0- 9		9- 13	1867		0
OCT 24	**0- 25			5826		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

FILINIA LONGISETAE

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			0		
JUN 19	0- 3		6- 24	0		0
JUL 17	0- 6		9- 24	0		0
AUG 14	0- 6		9- 24	0		0
SEP 11	0- 9		12- 24	0		0
OCT 9	0- 12		15- 24	0		0
NOV 6	**0- 24			0		
1975						
JUN 2	0- 2	---	---	0	---	---
JUN 30	0- 2	---	---	0	---	---
JUL 28	0- 2	---	---	0	---	---
AUG 25	0- 2	---	---	0	---	---
SEP 22	0- 2	---	---	0	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	0	0	0
JUL 26	0- 5	5- 10	10- 15	0	0	0
JUL 29	0- 5	5- 10	10- 15	0	0	0
AUG 5	0- 5	5- 10	10- 15	0	0	0
AUG 12	0- 5	5- 10	10- 15	0	0	0
AUG 19	0- 5	5- 10	10- 15	0	0	0
AUG 26	0- 5	5- 10	10- 15	0	0	0
SEP 2	0- 5	5- 10	10- 15	0	0	0
SEP 9	0- 5	5- 10	10- 15	0	0	0
SEP 16	0- 5	5- 10	10- 15	0	0	0
SEP 30	0- 5	5- 10	10- 15	0	0	0
OCT 14	0- 5	5- 10	10- 15	0	0	0
OCT 28	0- 5	5- 10	10- 15	0	0	0
DEC 13	0- 5	5- 10	10- 15	0	0	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	0	0	0
MAR 28	0- 5	5- 10	10- 15	0	0	0
MAY 16	0- 5	5- 10	10- 15	0	0	0
JUN 16	0- 5	5- 10	10- 15	0	0	0
JUL 21	0- 5	5- 10	10- 15	0	0	0
AUG 25	0- 5	5- 10	10- 15	0	0	0
SEP 29	0- 10			0		
NOV 1	0- 15			0		
DEC 15	0- 5		5- 15	0		0
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	0		373
JUN 22	0- 5		5- 11	0		311
JUL 20	0- 5		5- 15	0		186
AUG 17	0- 5		5- 15	1120		0
SEP 14	0- 9		9- 13	0		933
OCT 24	**0- 25			149		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

COLLOTHECA SP.

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			0		
JUN 19	0- 3		6- 24	0		2256
JUL 17	0- 6		9- 24	0		0
AUG 14	0- 6		9- 24	0		10994
SEP 11	0- 9		12- 24	20905		10963
OCT 9	0- 12		15- 24	1300		2439
NOV 6	**0- 24			361		
1975						
JUN 2	0- 2	---	---	7398	---	---
JUN 30	0- 2	---	---	2739	---	---
JUL 28	0- 2	---	---	2747	---	---
AUG 25	0- 2	---	---	1450	---	---
SEP 22	0- 2	---	---	5274	---	---
OCT 20	0- 2	---	---	2571	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	28213	0	0
JUL 26	0- 5	5- 10	10- 15	42985	0	0
JUL 29	0- 5	5- 10	10- 15	31169	7333	0
AUG 5	0- 5	5- 10	10- 15	9175	8080	0
AUG 12	0- 5	5- 10	10- 15	14667	3870	2444
AUG 19	0- 5	5- 10	10- 15	15482	7130	0
AUG 26	0- 5	5- 10	10- 15	16093	9982	0
SEP 2	0- 5	5- 10	10- 15	17927	11000	0
SEP 9	0- 5	5- 10	10- 15	26517	4481	14566
SEP 16	0- 5	5- 10	10- 15	41083	32867	0
SEP 30	0- 5	5- 10	10- 15	25023	14939	24276
OCT 14	0- 5	5- 10	10- 15	10831	8963	8216
OCT 28	0- 5	5- 10	10- 15	8963	373	2240
DEC 13	0- 5	5- 10	10- 15	746	1493	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	0	373	0
MAR 28	0- 5	5- 10	10- 15	0	0	0
MAY 16	0- 5	5- 10	10- 15	6722	0	0
JUN 16	0- 5	5- 10	10- 15	16433	28385	0
JUL 21	0- 5	5- 10	10- 15	24650	5228	0
AUG 25	0- 5	5- 10	10- 15	16060	20168	0
SEP 29	0- 10			7283		
NOV 1	0- 15			2738		
DEC 15	0- 5		5- 15	746		0
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	466		3361
JUN 22	0- 5		5- 11	55276		7158
JUL 20	0- 5		5- 15	22035		7469
AUG 17	0- 5		5- 15	20915		10831
SEP 14	0- 9		9- 13	25106		2801
OCT 24	**0- 25			1195		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

PLOESOMA TRUNCATUM

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			0		
JUN 19	0- 3		6- 24	0		0
JUL 17	0- 6		9- 24	0		0
AUG 14	0- 6		9- 24	1393		619
SEP 11	0- 9		12- 24	0		185
OCT 9	0- 12		15- 24	0		0
NOV 6	**0- 24			0		
1975						
JUN 2	0- 2	---	---	0	---	---
JUN 30	0- 2	---	---	0	---	---
JUL 28	0- 2	---	---	183	---	---
AUG 25	0- 2	---	---	1846	---	---
SEP 22	0- 2	---	---	0	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	1113	301	0
JUL 26	0- 5	5- 10	10- 15	3055	611	0
JUL 29	0- 5	5- 10	10- 15	1629	407	1833
AUG 5	0- 5	5- 10	10- 15	4708	3010	0
AUG 12	0- 5	5- 10	10- 15	6315	1222	3055
AUG 19	0- 5	5- 10	10- 15	9167	3463	3055
AUG 26	0- 5	5- 10	10- 15	10389	0	0
SEP 2	0- 5	5- 10	10- 15	1833	1018	0
SEP 9	0- 5	5- 10	10- 15	3734	0	0
SEP 16	0- 5	5- 10	10- 15	2240	0	0
SEP 30	0- 5	5- 10	10- 15	0	0	0
OCT 14	0- 5	5- 10	10- 15	0	0	0
OCT 28	0- 5	5- 10	10- 15	0	0	0
DEC 13	0- 5	5- 10	10- 15	0	0	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	0	0	0
MAR 28	0- 5	5- 10	10- 15	0	0	0
MAY 16	0- 5	5- 10	10- 15	0	0	0
JUN 16	0- 5	5- 10	10- 15	0	0	0
JUL 21	0- 5	5- 10	10- 15	3734	1867	746
AUG 25	0- 5	5- 10	10- 15	5228	0	2240
SEP 29	0- 10			0		
NOV 1	0- 15			0		
DEC 15	0- 5		5- 15	0		0
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	0		0
JUN 22	0- 5		5- 11	0		0
JUL 20	0- 5		5- 15	746		186
AUG 17	0- 5		5- 15	1493		0
SEP 14	0- 9		9- 13	0		0
OCT 24	**0- 25			0		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

POLYARTHRA VULGARIS

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			435		
JUN 19	0- 3		6- 24	1248		17985
JUL 17	0- 6		9- 24	5156		696
AUG 14	0- 6		9- 24	8672		1548
SEP 11	0- 9		12- 24	1393		929
OCT 9	0- 12		15- 24	0		348
NOV 6	**0- 24			103		
1975						
JUN 2	0- 2	---	---	813	---	---
JUN 30	0- 2	---	---	0	---	---
JUL 28	0- 2	---	---	457	---	---
AUG 25	0- 2	---	---	1186	---	---
SEP 22	0- 2	---	---	494	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	20046	0	0
JUL 26	0- 5	5- 10	10- 15	42985	0	0
JUL 29	0- 5	5- 10	10- 15	24446	0	0
AUG 5	0- 5	5- 10	10- 15	12917	2218	0
AUG 12	0- 5	5- 10	10- 15	31984	0	0
AUG 19	0- 5	5- 10	10- 15	37077	0	2648
AUG 26	0- 5	5- 10	10- 15	52356	0	0
SEP 2	0- 5	5- 10	10- 15	40133	20575	0
SEP 9	0- 5	5- 10	10- 15	11951	7843	0
SEP 16	0- 5	5- 10	10- 15	16060	8963	0
SEP 30	0- 5	5- 10	10- 15	3734	1867	1493
OCT 14	0- 5	5- 10	10- 15	2240	1493	0
OCT 28	0- 5	5- 10	10- 15	1493	1867	0
DEC 13	0- 5	5- 10	10- 15	1120	1867	2987
1977						
JAN 25	0- 5	5- 10	10- 15	0	7843	0
MAR 2	0- 5	5- 10	10- 15	746	746	1493
MAR 28	0- 5	5- 10	10- 15	1493	6349	0
MAY 16	0- 5	5- 10	10- 15	6722	23529	0
JUN 16	0- 5	5- 10	10- 15	20915	25770	746
JUL 21	0- 5	5- 10	10- 15	31373	0	4108
AUG 25	0- 5	5- 10	10- 15	7469	3734	0
SEP 29	0- 10			0		
NOV 1	0- 15			497		
DEC 15	0- 5		5- 15	4481		0
1978						
JAN 12	0- 5		5- 15	1120		0
FEB 13	0- 5		5- 15	2614		0
MAR 13	0- 5		5- 15	1867		2427
MAY 17	0- 4		4- 9	1400		11578
JUN 22	0- 5		5- 11	8963		6536
JUL 20	0- 5		5- 15	10457		2801
AUG 17	0- 5		5- 15	23529		0
SEP 14	0- 9		9- 13	6017		0
OCT 24	**0- 25			4705		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

POLYARTHRA REMATA

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			2613		
JUN 19	0- 3		6- 24	7740		2389
JUL 17	0- 6		9- 24	7526		4568
AUG 14	0- 6		9- 24	14556		6968
SEP 11	0- 9		12- 24	6271		4367
OCT 9	0- 12		15- 24	929		1045
NOV 6	**0- 24			929		
1975						
JUN 2	0- 2	---	---	894	---	---
JUN 30	0- 2	---	---	0	---	---
JUL 28	0- 2	---	---	1465	---	---
AUG 25	0- 2	---	---	10021	---	---
SEP 22	0- 2	---	---	3076	---	---
OCT 20	0- 2	---	---	791	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	24872	0	0
JUL 26	0- 5	5- 10	10- 15	53986	0	0
JUL 29	0- 5	5- 10	10- 15	41151	407	0
AUG 5	0- 5	5- 10	10- 15	48530	0	0
AUG 12	0- 5	5- 10	10- 15	81692	0	0
AUG 19	0- 5	5- 10	10- 15	75988	0	0
AUG 26	0- 5	5- 10	10- 15	122640	0	0
SEP 2	0- 5	5- 10	10- 15	89229	40947	0
SEP 9	0- 5	5- 10	10- 15	51541	4855	0
SEP 16	0- 5	5- 10	10- 15	67601	23903	0
SEP 30	0- 5	5- 10	10- 15	10831	0	0
OCT 14	0- 5	5- 10	10- 15	4481	4108	2614
OCT 28	0- 5	5- 10	10- 15	1493	0	373
DEC 13	0- 5	5- 10	10- 15	746	0	373
1977						
JAN 25	0- 5	5- 10	10- 15	373	373	0
MAR 2	0- 5	5- 10	10- 15	0	373	0
MAR 28	0- 5	5- 10	10- 15	0	746	0
MAY 16	0- 5	5- 10	10- 15	3361	3361	0
JUN 16	0- 5	5- 10	10- 15	10084	0	1867
JUL 21	0- 5	5- 10	10- 15	746	0	0
AUG 25	0- 5	5- 10	10- 15	5975	0	0
SEP 29	0- 10			0		
NOV 1	0- 15			124		
DEC 15	0- 5		5- 15	0		0
1978						
JAN 12	0- 5		5- 15	0		186
FEB 13	0- 5		5- 15	746		0
MAR 13	0- 5		5- 15	0		186
MAY 17	0- 4		4- 9	0		1120
JUN 22	0- 5		5- 11	0		0
JUL 20	0- 5		5- 15	2614		0
AUG 17	0- 5		5- 15	4855		0
SEP 14	0- 9		9- 13	4979		0
OCT 24	**0- 25			298		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

ASCOMORPHA SP.

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			87		
JUN 19	0- 3		6- 24	0		0
JUL 17	0- 6		9- 24	0		154
AUG 14	0- 6		9- 24	0		0
SEP 11	0- 9		12- 24	116		92
OCT 9	0- 12		15- 24	0		116
NOV 6	**0- 24			103		
1975						
JUN 2	0- 2	---	---	731	---	---
JUN 30	0- 2	---	---	0	---	---
JUL 28	0- 2	---	---	91	---	---
AUG 25	0- 2	---	---	0	---	---
SEP 22	0- 2	---	---	0	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	0	0	203
JUL 26	0- 5	5- 10	10- 15	0	203	0
JUL 29	0- 5	5- 10	10- 15	0	0	0
AUG 5	0- 5	5- 10	10- 15	724		0
AUG 12	0- 5	5- 10	10- 15	0	203	0
AUG 19	0- 5	5- 10	10- 15	0	0	0
AUG 26	0- 5	5- 10	10- 15	0	0	0
SEP 2	0- 5	5- 10	10- 15	0	203	0
SEP 9	0- 5	5- 10	10- 15	0	373	0
SEP 16	0- 5	5- 10	10- 15	0	0	373
SEP 30	0- 5	5- 10	10- 15	0	0	0
OCT 14	0- 5	5- 10	10- 15	0	0	0
OCT 28	0- 5	5- 10	10- 15	0	0	0
DEC 13	0- 5	5- 10	10- 15	0	0	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	0	0	0
MAR 28	0- 5	5- 10	10- 15	0	0	0
MAY 16	0- 5	5- 10	10- 15	746	0	0
JUN 16	0- 5	5- 10	10- 15	0	0	0
JUL 21	0- 5	5- 10	10- 15	0	0	0
AUG 25	0- 5	5- 10	10- 15	0	0	0
SEP 29	0- 10			0		
NOV 1	0- 15			0		
DEC 15	0- 5		5- 15	0		0
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	0		2240
JUN 22	0- 5		5- 11	0		10582
JUL 20	0- 5		5- 15	0		11017
AUG 17	0- 5		5- 15	0		373
SEP 14	0- 9		9- 13	0		933
OCT 24	**0- 25			149		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

GASTROPUS SP.

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			0		
JUN 19	0- 3		6- 24	0		20175
JUL 17	0- 6		9- 24	836		0
AUG 14	0- 6		9- 24	1548		0
SEP 11	0- 9		12- 24	116		0
OCT 9	0- 12		15- 24	0		0
NOV 6	**0- 24			412		
1975						
JUN 2	0- 2	---	---	0	---	---
JUN 30	0- 2	---	---	249	---	---
JUL 28	0- 2	---	---	274	---	---
AUG 25	0- 2	---	---	131	---	---
SEP 22	0- 2	---	---	824	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	494	0	0
JUL 26	0- 5	5- 10	10- 15	407	0	0
JUL 29	0- 5	5- 10	10- 15	1222	0	0
AUG 5	0- 5	5- 10	10- 15	241	316	0
AUG 12	0- 5	5- 10	10- 15	1833	0	0
AUG 19	0- 5	5- 10	10- 15	1426	0	0
AUG 26	0- 5	5- 10	10- 15	203	611	0
SEP 2	0- 5	5- 10	10- 15	0	0	407
SEP 9	0- 5	5- 10	10- 15	0	373	373
SEP 16	0- 5	5- 10	10- 15	0	0	373
SEP 30	0- 5	5- 10	10- 15	373	373	0
OCT 14	0- 5	5- 10	10- 15	3361	0	1120
OCT 28	0- 5	5- 10	10- 15	1867	0	2240
DEC 13	0- 5	5- 10	10- 15	2614	0	2614
1977						
JAN 25	0- 5	5- 10	10- 15	373	2240	0
MAR 2	0- 5	5- 10	10- 15	3361	0	1867
MAR 28	0- 5	5- 10	10- 15	5602	1493	4108
MAY 16	0- 5	5- 10	10- 15	1493	746	91131
JUN 16	0- 5	5- 10	10- 15	5228	9710	4108
JUL 21	0- 5	5- 10	10- 15	373	4481	6722
AUG 25	0- 5	5- 10	10- 15	0	373	2987
SEP 29	0- 10			0		
NOV 1	0- 15			0		
DEC 15	0- 5		5- 15	0		1493
1978						
JAN 12	0- 5		5- 15	746		746
FEB 13	0- 5		5- 15	746		186
MAR 13	0- 5		5- 15	1867		0
MAY 17	0- 4		4- 9	466		2987
JUN 22	0- 5		5- 11	746		0
JUL 20	0- 5		5- 15	1493		0
AUG 17	0- 5		5- 15	0		0
SEP 14	0- 9		9- 13	829		1400
OCT 24	**0- 25			896		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

TRICHOCERCA CYLINDRICA

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			0		
JUN 19	0- 3		6- 24	0		0
JUL 17	0- 6		9- 24	0		0
AUG 14	0- 6		9- 24	464		309
SEP 11	0- 9		12- 24	3135		836
OCT 9	0- 12		15- 24	92		0
NOV 6	**0- 24			0		
1975						
JUN 2	0- 2	---	---	243	---	---
JUN 30	0- 2	---	---	0	---	---
JUL 28	0- 2	---	---	549	---	---
AUG 25	0- 2	---	---	2109	---	---
SEP 22	0- 2	---	---	219	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	0	0	0
JUL 26	0- 5	5- 10	10- 15	0	0	0
JUL 29	0- 5	5- 10	10- 15	0	0	0
AUG 5	0- 5	5- 10	10- 15	241	0	159
AUG 12	0- 5	5- 10	10- 15	611	0	0
AUG 19	0- 5	5- 10	10- 15	611	407	0
AUG 26	0- 5	5- 10	10- 15	2037	814	1222
SEP 2	0- 5	5- 10	10- 15	6111	8556	1833
SEP 9	0- 5	5- 10	10- 15	12325	7096	0
SEP 16	0- 5	5- 10	10- 15	1867	4481	0
SEP 30	0- 5	5- 10	10- 15	0	0	0
OCT 14	0- 5	5- 10	10- 15	0	0	373
OCT 28	0- 5	5- 10	10- 15	0	0	0
DEC 13	0- 5	5- 10	10- 15	0	0	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	0	0	0
MAR 28	0- 5	5- 10	10- 15	0	0	0
MAY 16	0- 5	5- 10	10- 15	0	746	0
JUN 16	0- 5	5- 10	10- 15	0	0	373
JUL 21	0- 5	5- 10	10- 15	0	0	0
AUG 25	0- 5	5- 10	10- 15	1120	1120	0
SEP 29	0- 10			560		
NOV 1	0- 15			0		
DEC 15	0- 5		5- 15	0		0
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	0		0
JUN 22	0- 5		5- 11	746		0
JUL 20	0- 5		5- 15	0		0
AUG 17	0- 5		5- 15	373		0
SEP 14	0- 9		9- 13	207		0
OCT 24	**0- 25			0		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

TRICHOCERCA SP.

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			174		
JUN 19	0- 3		6- 24	0		66
JUL 17	0- 6		9- 24	0		77
AUG 14	0- 6		9- 24	154		154
SEP 11	0- 9		12- 24	232		276
OCT 9	0- 12		15- 24	185		232
NOV 6	**0- 24			0		
1975						
JUN 2	0- 2	---	---	81	---	---
JUN 30	0- 2	---	---	249	---	---
JUL 28	0- 2	---	---	0	---	---
AUG 25	0- 2	---	---	0	---	---
SEP 22	0- 2	---	---	824	---	---
OCT 20	0- 2	---	---	791	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	247	0	0
JUL 26	0- 5	5- 10	10- 15	0	0	0
JUL 29	0- 5	5- 10	10- 15	203	0	203
AUG 5	0- 5	5- 10	10- 15	120	158	0
AUG 12	0- 5	5- 10	10- 15	407	203	0
AUG 19	0- 5	5- 10	10- 15	203	0	0
AUG 26	0- 5	5- 10	10- 15	0	203	203
SEP 2	0- 5	5- 10	10- 15	814	203	0
SEP 9	0- 5	5- 10	10- 15	1120	0	746
SEP 16	0- 5	5- 10	10- 15	1867	0	0
SEP 30	0- 5	5- 10	10- 15	1493	1120	373
OCT 14	0- 5	5- 10	10- 15	1493	1867	0
OCT 28	0- 5	5- 10	10- 15	2614	746	373
DEC 13	0- 5	5- 10	10- 15	0	373	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	0	0	0
MAR 28	0- 5	5- 10	10- 15	0	0	0
MAY 16	0- 5	5- 10	10- 15	2614	4855	0
JUN 16	0- 5	5- 10	10- 15	5228	746	0
JUL 21	0- 5	5- 10	10- 15	0	0	0
AUG 25	0- 5	5- 10	10- 15	0	0	0
SEP 29	0- 10			0		
NOV 1	0- 15			0		
DEC 15	0- 5		5- 15	0		0
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	0		0
JUN 22	0- 5		5- 11	0		0
JUL 20	0- 5		5- 15	0		0
AUG 17	0- 5		5- 15	0		0
SEP 14	0- 9		9- 13	0		466
OCT 24	**0- 25			0		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

KERATELLA TAUROCEPHALA

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			43		
JUN 19	0- 3		6- 24	1747		796
JUL 17	0- 6		9- 24	278		0
AUG 14	0- 6		9- 24	0		0
SEP 11	0- 9		12- 24	0		0
OCT 9	0- 12		15- 24	92		232
NOV 6	**0- 24			309		
1975						
JUN 2	0- 2	---	---	731	---	---
JUN 30	0- 2	---	---	249	---	---
JUL 28	0- 2	---	---	2472	---	---
AUG 25	0- 2	---	---	0	---	---
SEP 22	0- 2	---	---	934	---	---
OCT 20	0- 2	---	---	692	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	123	0	0
JUL 26	0- 5	5- 10	10- 15	0	0	0
JUL 29	0- 5	5- 10	10- 15	0	0	0
AUG 5	0- 5	5- 10	10- 15	0	0	0
AUG 12	0- 5	5- 10	10- 15	0	0	0
AUG 19	0- 5	5- 10	10- 15	0	0	0
AUG 26	0- 5	5- 10	10- 15	0	0	0
SEP 2	0- 5	5- 10	10- 15	0	0	0
SEP 9	0- 5	5- 10	10- 15	0	0	0
SEP 16	0- 5	5- 10	10- 15	0	0	0
SEP 30	0- 5	5- 10	10- 15	0	0	0
OCT 14	0- 5	5- 10	10- 15	0	0	0
OCT 28	0- 5	5- 10	10- 15	0	0	0
DEC 13	0- 5	5- 10	10- 15	0	0	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	0	0	0
MAR 28	0- 5	5- 10	10- 15	0	0	0
MAY 16	0- 5	5- 10	10- 15	0	0	0
JUN 16	0- 5	5- 10	10- 15	0	0	0
JUL 21	0- 5	5- 10	10- 15	0	0	0
AUG 25	0- 5	5- 10	10- 15	0	0	0
SEP 29	0- 10			0		
NOV 1	0- 15			0		
DEC 15	0- 5		5- 15	746		1120
1978						
JAN 12	0- 5		5- 15	373		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	0		0
JUN 22	0- 5		5- 11	1120		0
JUL 20	0- 5		5- 15	0		0
AUG 17	0- 5		5- 15	0		0
SEP 14	0- 9		9- 13	0		0
OCT 24	**0- 25			0		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

KERATELLA COCHLEARIS

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			6141		
JUN 19	0- 3		6- 24	17729		22896
JUL 17	0- 6		9- 24	278		232
AUG 14	0- 6		9- 24	1858		3948
SEP 11	0- 9		12- 24	1626		3809
OCT 9	0- 12		15- 24	557		19860
NOV 6	**0- 24			13834		
1975						
JUN 2	0- 2	---	---	0	---	---
JUN 30	0- 2	---	---	0	---	---
JUL 28	0- 2	---	---	91	---	---
AUG 25	0- 2	---	---	527	---	---
SEP 22	0- 2	---	---	2032	---	---
OCT 20	0- 2	---	---	692	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	618	301	407
JUL 26	0- 5	5- 10	10- 15	1426	0	814
JUL 29	0- 5	5- 10	10- 15	1426	203	2648
AUG 5	0- 5	5- 10	10- 15	2535	475	959
AUG 12	0- 5	5- 10	10- 15	3666	0	1222
AUG 19	0- 5	5- 10	10- 15	3870	0	611
AUG 26	0- 5	5- 10	10- 15	5704	1833	0
SEP 2	0- 5	5- 10	10- 15	6111	1629	0
SEP 9	0- 5	5- 10	10- 15	1867	1493	0
SEP 16	0- 5	5- 10	10- 15	5228	0	746
SEP 30	0- 5	5- 10	10- 15	373	0	373
OCT 14	0- 5	5- 10	10- 15	1120	0	373
OCT 28	0- 5	5- 10	10- 15	5228	4481	5602
DEC 13	0- 5	5- 10	10- 15	746	6722	11951
1977						
JAN 25	0- 5	5- 10	10- 15	2614	12698	12698
MAR 2	0- 5	5- 10	10- 15	8590	10831	9710
MAR 28	0- 5	5- 10	10- 15	22035	14939	4108
MAY 16	0- 5	5- 10	10- 15	153877	86649	0
JUN 16	0- 5	5- 10	10- 15	49300	71336	108311
JUL 21	0- 5	5- 10	10- 15	70962	10831	54155
AUG 25	0- 5	5- 10	10- 15	3734	0	23156
SEP 29	0- 10			1120		
NOV 1	0- 15			3361		
DEC 15	0- 5		5- 15	15686		35668
1978						
JAN 12	0- 5		5- 15	27638		19421
FEB 13	0- 5		5- 15	123998		0
MAR 13	0- 5		5- 15	60505		38656
MAY 17	0- 4		4- 9	287119		68348
JUN 22	0- 5		5- 11	30252		42017
JUL 20	0- 5		5- 15	16060		77872
AUG 17	0- 5		5- 15	1120		31746
SEP 14	0- 9		9- 13	1867		2801
OCT 24	**0- 25			52213		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

KELLICOTTIA LONGISPINA

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			3484		
JUN 19	0- 3		6- 24	17729		14800
JUL 17	0- 6		9- 24	7944		6736
AUG 14	0- 6		9- 24	2477		4258
SEP 11	0- 9		12- 24	1626		2137
OCT 9	0- 12		15- 24	650		232
NOV 6	**0- 24			2271		
1975						
JUN 2	0- 2	---	---	9024	---	---
JUN 30	0- 2	---	---	4732	---	---
JUL 28	0- 2	---	---	3296	---	---
AUG 25	0- 2	---	---	131	---	---
SEP 22	0- 2	---	---	1208	---	---
OCT 20	0- 2	---	---	593	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	7919	3470	5296
JUL 26	0- 5	5- 10	10- 15	2852	6111	6315
JUL 29	0- 5	5- 10	10- 15	7741	11000	0
AUG 5	0- 5	5- 10	10- 15	3621	5704	0
AUG 12	0- 5	5- 10	10- 15	4278	2648	4889
AUG 19	0- 5	5- 10	10- 15	2240	2037	1629
AUG 26	0- 5	5- 10	10- 15	1222	1833	1629
SEP 2	0- 5	5- 10	10- 15	2037	0	1222
SEP 9	0- 5	5- 10	10- 15	746	3734	0
SEP 16	0- 5	5- 10	10- 15	1493	1867	373
SEP 30	0- 5	5- 10	10- 15	2987	5228	0
OCT 14	0- 5	5- 10	10- 15	6722	0	8590
OCT 28	0- 5	5- 10	10- 15	6349	6349	0
DEC 13	0- 5	5- 10	10- 15	4855	8963	8216
1977						
JAN 25	0- 5	5- 10	10- 15	1867	5975	7469
MAR 2	0- 5	5- 10	10- 15	2240	4481	2987
MAR 28	0- 5	5- 10	10- 15	6349	4855	373
MAY 16	0- 5	5- 10	10- 15	51541	373	0
JUN 16	0- 5	5- 10	10- 15	78432	47806	0
JUL 21	0- 5	5- 10	10- 15	2987	5975	8590
AUG 25	0- 5	5- 10	10- 15	1493	2614	-1121
SEP 29	0- 10			1867		
NOV 1	0- 15			1369		
DEC 15	0- 5		5- 15	7096		1867
1978						
JAN 12	0- 5		5- 15	9337		0
FEB 13	0- 5		5- 15	5975		746
MAR 13	0- 5		5- 15	12325		746
MAY 17	0- 4		4- 9	21942		0
JUN 22	0- 5		5- 11	40710		7158
JUL 20	0- 5		5- 15	30999		10457
AUG 17	0- 5		5- 15	3361		14566
SEP 14	0- 9		9- 13	3734		933
OCT 24	**0- 25			3734		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

KERATELLA HIEMALIS

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			566		
JUN 19	0- 3		6- 24	0		796
JUL 17	0- 6		9- 24	0		0
AUG 14	0- 6		9- 24	0		0
SEP 11	0- 9		12- 24	0		0
OCT 9	0- 12		15- 24	0		1858
NOV 6	**0- 24			0		
1975						
JUN 2	0- 2	---	---	0	---	---
JUN 30	0- 2	---	---	0	---	---
JUL 28	0- 2	---	---	0	---	---
AUG 25	0- 2	---	---	0	---	---
SEP 22	0- 2	---	---	0	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	0	0	0
JUL 26	0- 5	5- 10	10- 15	0	0	203
JUL 29	0- 5	5- 10	10- 15	0	0	407
AUG 5	0- 5	5- 10	10- 15	120	0	0
AUG 12	0- 5	5- 10	10- 15	611	0	0
AUG 19	0- 5	5- 10	10- 15	0	0	0
AUG 26	0- 5	5- 10	10- 15	407	0	0
SEP 2	0- 5	5- 10	10- 15	0	0	0
SEP 9	0- 5	5- 10	10- 15	0	373	0
SEP 16	0- 5	5- 10	10- 15	373	0	0
SEP 30	0- 5	5- 10	10- 15	0	0	0
OCT 14	0- 5	5- 10	10- 15	0	0	0
OCT 28	0- 5	5- 10	10- 15	1120	0	0
DEC 13	0- 5	5- 10	10- 15	0	0	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	373
MAR 2	0- 5	5- 10	10- 15	0	0	0
MAR 28	0- 5	5- 10	10- 15	0	0	0
MAY 16	0- 5	5- 10	10- 15	2987	0	2489
JUN 16	0- 5	5- 10	10- 15	0	0	0
JUL 21	0- 5	5- 10	10- 15	0	0	0
AUG 25	0- 5	5- 10	10- 15	0	0	0
SEP 29	0- 10			0		
NOV 1	0- 15			0		
DEC 15	0- 5		5- 15	0		373
1978						
JAN 12	0- 5		5- 15	1120		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	746		0
MAY 17	0- 4		4- 9	1400		0
JUN 22	0- 5		5- 11	1867		0
JUL 20	0- 5		5- 15	373		0
AUG 17	0- 5		5- 15	373		0
SEP 14	0- 9		9- 13	1659		0
OCT 24	**0- 25			3734		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

LECANE SP.

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			87		
JUN 19	0- 3		6- 24	0		0
JUL 17	0- 6		9- 24	0		0
AUG 14	0- 6		9- 24	0		154
SEP 11	0- 9		12- 24	0		0
OCT 9	0- 12		15- 24	0		0
NOV 6	**0- 24			0		
1975						
JUN 2	0- 2	---	---	162	---	---
JUN 30	0- 2	---	---	0	---	---
JUL 28	0- 2	---	---	0	---	---
AUG 25	0- 2	---	---	131	---	---
SEP 22	0- 2	---	---	0	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	123	452	0
JUL 26	0- 5	5- 10	10- 15	407	407	0
JUL 29	0- 5	5- 10	10- 15	407	0	0
AUG 5	0- 5	5- 10	10- 15	241	792	0
AUG 12	0- 5	5- 10	10- 15	203	0	0
AUG 19	0- 5	5- 10	10- 15	0	0	407
AUG 26	0- 5	5- 10	10- 15	203	0	0
SEP 2	0- 5	5- 10	10- 15	407	0	0
SEP 9	0- 5	5- 10	10- 15	0	0	746
SEP 16	0- 5	5- 10	10- 15	0	0	0
SEP 30	0- 5	5- 10	10- 15	0	373	0
OCT 14	0- 5	5- 10	10- 15	0	0	373
OCT 28	0- 5	5- 10	10- 15	0	0	0
DEC 13	0- 5	5- 10	10- 15	0	0	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	0	0	0
MAR 28	0- 5	5- 10	10- 15	0	0	0
MAY 16	0- 5	5- 10	10- 15	0	0	0
JUN 16	0- 5	5- 10	10- 15	746	0	0
JUL 21	0- 5	5- 10	10- 15	0	0	746
AUG 25	0- 5	5- 10	10- 15	373	0	0
SEP 29	0- 10			186		
NOV 1	0- 15			124		
DEC 15	0- 5		5- 15	0		0
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	0		0
JUN 22	0- 5		5- 11	373		0
JUL 20	0- 5		5- 15	0		0
AUG 17	0- 5		5- 15	0		0
SEP 14	0- 9		9- 13	414		0
OCT 24	**0- 25			0		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

OTHER SP. (GLOB. ROTIFERS)

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			2221		
JUN 19	0- 3		6- 24	10737		0
JUL 17	0- 6		9- 24	8501		5342
AUG 14	0- 6		9- 24	20751		3174
SEP 11	0- 9		12- 24	1161		371
OCT 9	0- 12		15- 24	185		0
NOV 6	**0- 24			154		
1975						
JUN 2	0- 2	---	---	325	---	---
JUN 30	0- 2	---	---	747	---	---
JUL 28	0- 2	---	---	183	---	---
AUG 25	0- 2	---	---	0	---	---
SEP 22	0- 2	---	---	1153	---	---
OCT 20	0- 2	---	---	98	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	2722	0	3666
JUL 26	0- 5	5- 10	10- 15	6111	1018	0
JUL 29	0- 5	5- 10	10- 15	9574	1426	0
AUG 5	0- 5	5- 10	10- 15	9175	0	0
AUG 12	0- 5	5- 10	10- 15	10186	0	814
AUG 19	0- 5	5- 10	10- 15	1018	0	0
AUG 26	0- 5	5- 10	10- 15	2852	0	203
SEP 2	0- 5	5- 10	10- 15	2240	0	0
SEP 9	0- 5	5- 10	10- 15	3361	0	3361
SEP 16	0- 5	5- 10	10- 15	2987	1120	373
SEP 30	0- 5	5- 10	10- 15	2614	1867	0
OCT 14	0- 5	5- 10	10- 15	746	373	0
OCT 28	0- 5	5- 10	10- 15	0	0	2240
DEC 13	0- 5	5- 10	10- 15	0	0	373
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	0	0	373
MAR 28	0- 5	5- 10	10- 15	0	0	0
MAY 16	0- 5	5- 10	10- 15	746	373	0
JUN 16	0- 5	5- 10	10- 15	5975	18674	0
JUL 21	0- 5	5- 10	10- 15	7843	9710	0
AUG 25	0- 5	5- 10	10- 15	0	746	0
SEP 29	0- 10			1307		
NOV 1	0- 15			0		
DEC 15	0- 5		5- 15	0		0
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	373		560
MAY 17	0- 4		4- 9	2334		0
JUN 22	0- 5		5- 11	373		4046
JUL 20	0- 5		5- 15	6349		3548
AUG 17	0- 5		5- 15	8216		560
SEP 14	0- 9		9- 13	1659		0
OCT 24	**0- 25			0		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

Appendix 2

Abundance of zooplankton eggs m^{-3} of selected species on each sampling date and depth stratum from which each samples was taken.

DAPHNIA GALEATA MENDOTAE X THORATA EGGS

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			0		
JUN 19	0- 3		6- 24	0		0
JUL 17	0- 6		9- 24	0		541
AUG 14	0- 6		9- 24	309		0
SEP 11	0- 9		12- 24	0		371
OCT 9	0- 12		15- 24	185		0
NOV 6	**0- 24			0		
1975						
JUN 2	0- 2	---	---	0	---	---
JUN 30	0- 2	---	---	0	---	---
JUL 28	0- 2	---	---	0	---	---
AUG 25	0- 2	---	---	0	---	---
SEP 22	0- 2	---	---	0	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	0	0	814
JUL 26	0- 5	5- 10	10- 15	0	0	0
JUL 29	0- 5	5- 10	10- 15	0	1018	0
AUG 5	0- 5	5- 10	10- 15	0	475	959
AUG 12	0- 5	5- 10	10- 15	0	611	1629
AUG 19	0- 5	5- 10	10- 15	0	611	2037
AUG 26	0- 5	5- 10	10- 15	0	611	1222
SEP 2	0- 5	5- 10	10- 15	0	1018	203
SEP 9	0- 5	5- 10	10- 15	0	2987	1492
SEP 16	0- 5	5- 10	10- 15	0	0	1867
SEP 30	0- 5	5- 10	10- 15	0	1493	0
OCT 14	0- 5	5- 10	10- 15	0	0	0
OCT 28	0- 5	5- 10	10- 15	373	0	746
DEC 13	0- 5	5- 10	10- 15	0	0	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	0	0	0
MAR 28	0- 5	5- 10	10- 15	0	0	0
MAY 16	0- 5	5- 10	10- 15	0	0	0
JUN 16	0- 5	5- 10	10- 15	0	2987	0
JUL 21	0- 5	5- 10	10- 15	0	1120	2240
AUG 25	0- 5	5- 10	10- 15	0	746	2240
SEP 29	0- 10			373		
NOV 1	0- 15			0		
DEC 15	0- 5		5- 15	0		0
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	0		0
JUN 22	0- 5		5- 11	1120		0
JUL 20	0- 5		5- 15	0		0
AUG 17	0- 5		5- 15	0		0
SEP 14	0- 9		9- 13	0		2334
OCT 24	**0- 25			298		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

BOSMINA LONGIROSTRIS EGGS

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			0		
JUN 19	0- 3		6- 24	0		0
JUL 17	0- 6		9- 24	278		0
AUG 14	0- 6		9- 24	0		0
SEP 11	0- 9		12- 24	580		92
OCT 9	0- 12		15- 24	0		0
NOV 6	**0- 24			0		
1975						
JUN 2	0- 2	---	---	0	---	---
JUN 30	0- 2	---	---	124	---	---
JUL 28	0- 2	---	---	0	---	---
AUG 25	0- 2	---	---	0	---	---
SEP 22	0- 2	---	---	0	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	123	150	0
JUL 26	0- 5	5- 10	10- 15	0	0	0
JUL 29	0- 5	5- 10	10- 15	0	0	0
AUG 5	0- 5	5- 10	10- 15	0	0	0
AUG 12	0- 5	5- 10	10- 15	0	203	0
AUG 19	0- 5	5- 10	10- 15	0	0	203
AUG 26	0- 5	5- 10	10- 15	0	203	0
SEP 2	0- 5	5- 10	10- 15	0	611	0
SEP 9	0- 5	5- 10	10- 15	0	0	373
SEP 16	0- 5	5- 10	10- 15	0	0	746
SEP 30	0- 5	5- 10	10- 15	373	0	0
OCT 14	0- 5	5- 10	10- 15	373	0	1120
OCT 28	0- 5	5- 10	10- 15	0	0	0
DEC 13	0- 5	5- 10	10- 15	0	0	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	0	0	0
MAR 28	0- 5	5- 10	10- 15	0	0	0
MAY 16	0- 5	5- 10	10- 15	0	0	0
JUN 16	0- 5	5- 10	10- 15	0	0	0
JUL 21	0- 5	5- 10	10- 15	0	0	0
AUG 25	0- 5	5- 10	10- 15	0	0	0
SEP 29	0- 10			0		
NOV 1	0- 15			124		
DEC 15	0- 5		5- 15	1867		0
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	0		0
JUN 22	0- 5		5- 11	373		0
JUL 20	0- 5		5- 15	0		0
AUG 17	0- 5		5- 15	0		0
SEP 14	0- 9		9- 13	0		0
OCT 24	**0- 25			0		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

DIAPTANOSOMA BRACHYURUM EGGS

1974	*SAMPLING LAYER (METERS) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			0		
JUN 19	0- 3		6- 24	0		0
JUL 17	0- 6		9- 24	0		0
AUG 14	0- 6		9- 24	154		0
SEP 11	0- 9		12- 24	0		0
OCT 9	0- 12		15- 24	0		0
NOV 6	**0- 24			0		
1975						
JUN 2	0- 2	---	---	0	---	---
JUN 30	0- 2	---	---	0	---	---
JUL 28	0- 2	---	---	0	---	---
AUG 25	0- 2	---	---	0	---	---
SEP 22	0- 2	---	---	0	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	0	0	203
JUL 26	0- 5	5- 10	10- 15	0	0	0
JUL 29	0- 5	5- 10	10- 15	0	0	0
AUG 5	0- 5	5- 10	10- 15	0	0	0
AUG 12	0- 5	5- 10	10- 15	0	0	0
AUG 19	0- 5	5- 10	10- 15	0	0	0
AUG 26	0- 5	5- 10	10- 15	0	0	0
SEP 2	0- 5	5- 10	10- 15	0	0	0
SEP 9	0- 5	5- 10	10- 15	0	0	0
SEP 16	0- 5	5- 10	10- 15	0	0	0
SEP 30	0- 5	5- 10	10- 15	0	0	0
OCT 14	0- 5	5- 10	10- 15	0	0	0
OCT 28	0- 5	5- 10	10- 15	0	0	0
DEC 13	0- 5	5- 10	10- 15	0	0	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	0	0	0
MAR 28	0- 5	5- 10	10- 15	0	0	0
MAY 16	0- 5	5- 10	10- 15	0	0	0
JUN 16	0- 5	5- 10	10- 15	0	0	0
JUL 21	0- 5	5- 10	10- 15	0	373	0
AUG 25	0- 5	5- 10	10- 15	0	0	0
SEP 29	0- 10			0		
NOV 1	0- 15			0		
DEC 15	0- 5		5- 15	0		0
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	0		0
JUN 22	0- 5		5- 11	0		0
JUL 20	0- 5		5- 15	746		1307
AUG 17	0- 5		5- 15	0		0
SEP 14	0- 9		9- 13	0		0
OCT 24	**0- 25			0		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

DIAPTOMUS MINUTUS EGGS

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			0		
JUN 19	0- 3		6- 24	0		199
JUL 17	0- 6		9- 24	0		0
AUG 14	0- 6		9- 24	309		0
SEP 11	0- 9		12- 24	464		464
OCT 9	0- 12		15- 24	1022		580
NOV 6	**0- 24			361		
1975						
JUN 2	0- 2	---	---	0	---	---
JUN 30	0- 2	---	---	996	---	---
JUL 28	0- 2	---	---	0	---	---
AUG 25	0- 2	---	---	0	---	---
SEP 22	0- 2	---	---	274	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	371	452	0
JUL 26	0- 5	5- 10	10- 15	0	203	203
JUL 29	0- 5	5- 10	10- 15	0	407	0
AUG 5	0- 5	5- 10	10- 15	0	792	0
AUG 12	0- 5	5- 10	10- 15	0	1629	0
AUG 19	0- 5	5- 10	10- 15	0	1833	0
AUG 26	0- 5	5- 10	10- 15	0	407	203
SEP 2	0- 5	5- 10	10- 15	1629	407	0
SEP 9	0- 5	5- 10	10- 15	0	1493	746
SEP 16	0- 5	5- 10	10- 15	0	1493	0
SEP 30	0- 5	5- 10	10- 15	4481	0	1120
OCT 14	0- 5	5- 10	10- 15	2240	4108	0
OCT 28	0- 5	5- 10	10- 15	4108	0	373
DEC 13	0- 5	5- 10	10- 15	2614	0	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	0	0	0
MAR 28	0- 5	5- 10	10- 15	0	0	0
MAY 16	0- 5	5- 10	10- 15	0	0	0
JUN 16	0- 5	5- 10	10- 15	373	10084	0
JUL 21	0- 5	5- 10	10- 15	1120	1493	1120
AUG 25	0- 5	5- 10	10- 15	0	0	0
SEP 29	0- 10			560		
NOV 1	0- 15			995		
DEC 15	0- 5		5- 15	0		0
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	0		0
JUN 22	0- 5		5- 11	19794		0
JUL 20	0- 5		5- 15	1120		3361
AUG 17	0- 5		5- 15	2614		0
SEP 14	0- 9		9- 13	1659		0
OCT 24	**0- 25			1344		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

DIAPTOMUS SICILIS EGGS

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			522		
JUN 19	0- 3		6- 24	0		0
JUL 17	0- 6		9- 24	0		0
AUG 14	0- 6		9- 24	0		0
SEP 11	0- 9		12- 24	0		0
OCT 9	0- 12		15- 24	0		0
NOV 6	**0- 24			0		
1975						
JUN 2	0- 2	---	---	0	---	---
JUN 30	0- 2	---	---	0	---	---
JUL 28	0- 2	---	---	0	---	---
AUG 25	0- 2	---	---	0	---	---
SEP 22	0- 2	---	---	0	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	0	0	0
JUL 26	0- 5	5- 10	10- 15	0	0	0
JUL 29	0- 5	5- 10	10- 15	0	0	0
AUG 5	0- 5	5- 10	10- 15	0	0	0
AUG 12	0- 5	5- 10	10- 15	0	0	0
AUG 19	0- 5	5- 10	10- 15	0	0	0
AUG 26	0- 5	5- 10	10- 15	0	0	0
SEP 2	0- 5	5- 10	10- 15	0	0	0
SEP 9	0- 5	5- 10	10- 15	0	0	0
SEP 16	0- 5	5- 10	10- 15	0	0	0
SEP 30	0- 5	5- 10	10- 15	0	0	0
OCT 14	0- 5	5- 10	10- 15	0	0	0
OCT 28	0- 5	5- 10	10- 15	0	0	0
DEC 13	0- 5	5- 10	10- 15	0	0	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	2987
MAR 2	0- 5	5- 10	10- 15	2614	8963	30999
MAR 28	0- 5	5- 10	10- 15	7096	8963	22409
MAY 16	0- 5	5- 10	10- 15	0	6349	0
JUN 16	0- 5	5- 10	10- 15	0	0	0
JUL 21	0- 5	5- 10	10- 15	0	0	0
AUG 25	0- 5	5- 10	10- 15	0	0	0
SEP 29	0- 10			0		
NOV 1	0- 15			0		
DEC 15	0- 5		5- 15	0		7656
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	42204		5602
MAR 13	0- 5		5- 15	13819		12885
MAY 17	0- 4		4- 9	2801		13445
JUN 22	0- 5		5- 11	0		0
JUL 20	0- 5		5- 15	0		0
AUG 17	0- 5		5- 15	0		0
SEP 14	0- 9		9- 13	0		0
OCT 24	**0- 25			0		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

CYCLOPS BICUSPIDATUS EGGS

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			0		
JUN 19	0- 3		6- 24	0		0
JUL 17	0- 6		9- 24	0		774
AUG 14	0- 6		9- 24	0		1935
SEP 11	0- 9		12- 24	0		0
OCT 9	0- 12		15- 24	0		2090
NOV 6	**0- 24			154		
1975						
JUN 2	0- 2	---	---	0	---	---
JUN 30	0- 2	---	---	0	---	---
JUL 28	0- 2	---	---	0	---	---
AUG 25	0- 2	---	---	0	---	---
SEP 22	0- 2	---	---	0	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	0	0	0
JUL 26	0- 5	5- 10	10- 15	0	0	0
JUL 29	0- 5	5- 10	10- 15	0	0	0
AUG 5	0- 5	5- 10	10- 15	0	0	0
AUG 12	0- 5	5- 10	10- 15	0	0	0
AUG 19	0- 5	5- 10	10- 15	0	0	1222
AUG 26	0- 5	5- 10	10- 15	0	0	611
SEP 2	0- 5	5- 10	10- 15	0	0	0
SEP 9	0- 5	5- 10	10- 15	0	0	0
SEP 16	0- 5	5- 10	10- 15	0	0	0
SEP 30	0- 5	5- 10	10- 15	0	0	0
OCT 14	0- 5	5- 10	10- 15	0	0	0
OCT 28	0- 5	5- 10	10- 15	0	0	0
DEC 13	0- 5	5- 10	10- 15	0	0	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	0	0	0
MAR 28	0- 5	5- 10	10- 15	0	0	0
MAY 16	0- 5	5- 10	10- 15	0	0	0
JUN 16	0- 5	5- 10	10- 15	0	0	0
JUL 21	0- 5	5- 10	10- 15	0	0	11204
AUG 25	0- 5	5- 10	10- 15	0	0	0
SEP 29	0- 10			0		
NOV 1	0- 15			0		
DEC 15	0- 5		5- 15	0		0
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	0		0
JUN 22	0- 5		5- 11	0		0
JUL 20	0- 5		5- 15	0		0
AUG 17	0- 5		5- 15	0		5602
SEP 14	0- 9		9- 13	0		0
OCT 24	**0- 25			0		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

TROPOCYCLOPS PRASINUS EGGS

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			0		
JUN 19	0- 3		6- 24	0		0
JUL 17	0- 6		9- 24	0		0
AUG 14	0- 6		9- 24	0		0
SEP 11	0- 9		12- 24	0		0
OCT 9	0- 12		15- 24	0		0
NOV 6	**0- 24			0		
1975						
JUN 2	0- 2	---	---	0	---	---
JUN 30	0- 2	---	---	0	---	---
JUL 28	0- 2	---	---	0	---	---
AUG 25	0- 2	---	---	0	---	---
SEP 22	0- 2	---	---	0	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	0	0	0
JUL 26	0- 5	5- 10	10- 15	0	0	0
JUL 29	0- 5	5- 10	10- 15	0	0	0
AUG 5	0- 5	5- 10	10- 15	0	0	0
AUG 12	0- 5	5- 10	10- 15	1018	0	0
AUG 19	0- 5	5- 10	10- 15	0	1833	0
AUG 26	0- 5	5- 10	10- 15	0	0	0
SEP 2	0- 5	5- 10	10- 15	0	0	0
SEP 9	0- 5	5- 10	10- 15	0	0	0
SEP 16	0- 5	5- 10	10- 15	0	0	0
SEP 30	0- 5	5- 10	10- 15	0	0	0
OCT 14	0- 5	5- 10	10- 15	0	0	0
OCT 28	0- 5	5- 10	10- 15	0	0	0
DEC 13	0- 5	5- 10	10- 15	0	0	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	0	0	0
MAR 28	0- 5	5- 10	10- 15	0	0	0
MAY 16	0- 5	5- 10	10- 15	0	5602	0
JUN 16	0- 5	5- 10	10- 15	0	0	0
JUL 21	0- 5	5- 10	10- 15	0	0	0
AUG 25	0- 5	5- 10	10- 15	0	0	0
SEP 29	0- 10			0		
NOV 1	0- 15			0		
DEC 15	0- 5		5- 15	0		0
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	0		0
JUN 22	0- 5		5- 11	0		0
JUL 20	0- 5		5- 15	0		1307
AUG 17	0- 5		5- 15	0		0
SEP 14	0- 9		9- 13	0		0
OCT 24	**0- 25			0		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

COLLOTHECA SP. EGGS

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M^3 UPPER	MIDDLE	LOWER
MAY 22	**0- 21			0		
JUN 19	0- 3		6- 24	0		0
JUL 17	0- 6		9- 24	0		0
AUG 14	0- 6		9- 24	0		2710
SEP 11	0- 9		12- 24	0		1672
OCT 9	0- 12		15- 24	185		348
NOV 6	**0- 24			0		
1975						
JUN 2	0- 2	---	---	5772	---	---
JUN 30	0- 2	---	---	871	---	---
JUL 28	0- 2	---	---	732	---	---
AUG 25	0- 2	---	---	527	---	---
SEP 22	0- 2	---	---	1758	---	---
OCT 20	0- 2	---	---	791	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	7671	0	0
JUL 26	0- 5	5- 10	10- 15	12630	1222	0
JUL 29	0- 5	5- 10	10- 15	6926	814	0
AUG 5	0- 5	5- 10	10- 15	1327	792	0
AUG 12	0- 5	5- 10	10- 15	1629	1426	3666
AUG 19	0- 5	5- 10	10- 15	3666	1426	0
AUG 26	0- 5	5- 10	10- 15	3055	2852	814
SEP 2	0- 5	5- 10	10- 15	2852	6111	0
SEP 9	0- 5	5- 10	10- 15	8963	1120	4481
SEP 16	0- 5	5- 10	10- 15	14566	9337	0
SEP 30	0- 5	5- 10	10- 15	6349	1493	6722
OCT 14	0- 5	5- 10	10- 15	3361	5602	2987
OCT 28	0- 5	5- 10	10- 15	746	373	0
DEC 13	0- 5	5- 10	10- 15	0	0	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	0	0	0
MAR 28	0- 5	5- 10	10- 15	0	0	0
MAY 16	0- 5	5- 10	10- 15	2614	0	497
JUN 16	0- 5	5- 10	10- 15	5228	10831	0
JUL 21	0- 5	5- 10	10- 15	5975	4108	0
AUG 25	0- 5	5- 10	10- 15	5228	4855	0
SEP 29	0- 10			1493		
NOV 1	0- 15			0		
DEC 15	0- 5		5- 15	0		0
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	466		746
JUN 22	0- 5		5- 11	19794		2801
JUL 20	0- 5		5- 15	4855		4481
AUG 17	0- 5		5- 15	4855		6349
SEP 14	0- 9		9- 13	7262		466
OCT 24	**0- 25			0		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

POLYARTHRA VULGARIS EGGS

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M^3 UPPER	MIDDLE	LOWER
MAY 22	**0- 21			0		
JUN 19	0- 3		6- 24	0		66
JUL 17	0- 6		9- 24	0		0
AUG 14	0- 6		9- 24	0		0
SEP 11	0- 9		12- 24	0		0
OCT 9	0- 12		15- 24	0		0
NOV 6	**0- 24			0		
1975						
JUN 2	0- 2	---	---	0	---	---
JUN 30	0- 2	---	---	0	---	---
JUL 28	0- 2	---	---	0	---	---
AUG 25	0- 2	---	---	0	---	---
SEP 22	0- 2	---	---	0	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	123	0	0
JUL 26	0- 5	5- 10	10- 15	1018	0	0
JUL 29	0- 5	5- 10	10- 15	1426	0	203
AUG 5	0- 5	5- 10	10- 15	724	316	0
AUG 12	0- 5	5- 10	10- 15	2240	0	611
AUG 19	0- 5	5- 10	10- 15	1426	407	0
AUG 26	0- 5	5- 10	10- 15	9982	0	0
SEP 2	0- 5	5- 10	10- 15	7537	4481	0
SEP 9	0- 5	5- 10	10- 15	2240	373	0
SEP 16	0- 5	5- 10	10- 15	4481	0	0
SEP 30	0- 5	5- 10	10- 15	746	746	0
OCT 14	0- 5	5- 10	10- 15	373	746	0
OCT 28	0- 5	5- 10	10- 15	373	746	0
DEC 13	0- 5	5- 10	10- 15	0	0	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	0	0	0
MAR 28	0- 5	5- 10	10- 15	0	0	0
MAY 16	0- 5	5- 10	10- 15	0	0	0
JUN 16	0- 5	5- 10	10- 15	0	0	0
JUL 21	0- 5	5- 10	10- 15	0	0	0
AUG 25	0- 5	5- 10	10- 15	0	0	0
SEP 29	0- 10			0		
NOV 1	0- 15			0		
DEC 15	0- 5		5- 15	0		0
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	0		0
JUN 22	0- 5		5- 11	746		0
JUL 20	0- 5		5- 15	0		373
AUG 17	0- 5		5- 15	746		186
SEP 14	0- 9		9- 13	0		466
OCT 24	**0- 25			74		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

POLYARTHRA REMATA EGGS

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			130		
JUN 19	0- 3		6- 24	499		132
JUL 17	0- 6		9- 24	139		77
AUG 14	0- 6		9- 24	309		232
SEP 11	0- 9		12- 24	0		0
OCT 9	0- 12		15- 24	0		0
NOV 6	**0- 24			0		
1975						
JUN 2	0- 2	---	---	81	---	---
JUN 30	0- 2	---	---	0	---	---
JUL 28	0- 2	---	---	0	---	---
AUG 25	0- 2	---	--	0		
SEP 22	0- 2	---	---	109	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	0	0	0
JUL 26	0- 5	5- 10	10- 15	1018	0	0
JUL 29	0- 5	5- 10	10- 15	407	407	0
AUG 5	0- 5	5- 10	10- 15	1086	0	0
AUG 12	0- 5	5- 10	10- 15	2240	0	814
AUG 19	0- 5	5- 10	10- 15	0	1018	0
AUG 26	0- 5	5- 10	10- 15	1426	0	0
SEP 2	0- 5	5- 10	10- 15	2444	1018	0
SEP 9	0- 5	5- 10	10- 15	1867	0	0
SEP 16	0- 5	5- 10	10- 15	746	1120	0
SEP 30	0- 5	5- 10	10- 15	746	0	1120
OCT 14	0- 5	5- 10	10- 15	2240	0	373
OCT 28	0- 5	5- 10	10- 15	0	0	0
DEC 13	0- 5	5- 10	10- 15	0	0	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	0	0	0
MAR 28	0- 5	5- 10	10- 15	0	0	0
MAY 16	0- 5	5- 10	10- 15	0	0	0
JUN 16	0- 5	5- 10	10- 15	0	0	0
JUL 21	0- 5	5- 10	10- 15	0	0	0
AUG 25	0- 5	5- 10	10- 15	0	0	0
SEP 29	0- 10			0		
NOV 1	0- 15			0		
DEC 15	0- 5		5- 15	0		0
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	0		0
JUN 22	0- 5		5- 11	0		0
JUL 20	0- 5		5- 15	0		0
AUG 17	0- 5		5- 15	373		0
SEP 14	0- 9		9- 13	414		0
OCT 24	**0- 25			0		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

KELLICOTTIA LONGISPINA EGGS

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			1437		
JUN 19	0- 3		6- 24	3995		4313
JUL 17	0- 6		9- 24	836		1548
AUG 14	0- 6		9- 24	0		851
SEP 11	0- 9		12- 24	116		92
OCT 9	0- 12		15- 24	0		0
NOV 6	**0- 24			464		
1975						
JUN 2	0- 2	---	---	2601	---	---
JUN 30	0- 2	---	---	249	---	---
JUL 28	0- 2	---	---	0	---	---
AUG 25	0- 2	---	---	0	---	---
SEP 22	0- 2	---	---	0	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	247	1056	203
JUL 26	0- 5	5- 10	10- 15	407	407	0
JUL 29	0- 5	5- 10	10- 15	407	1833	0
AUG 5	0- 5	5- 10	10- 15	482	0	479
AUG 12	0- 5	5- 10	10- 15	0	0	814
AUG 19	0- 5	5- 10	10- 15	0	203	203
AUG 26	0- 5	5- 10	10- 15	0	407	0
SEP 2	0- 5	5- 10	10- 15	203	0	0
SEP 9	0- 5	5- 10	10- 15	373	0	0
SEP 16	0- 5	5- 10	10- 15	0	373	746
SEP 30	0- 5	5- 10	10- 15	0	746	0
OCT 14	0- 5	5- 10	10- 15	1493	0	1867
OCT 28	0- 5	5- 10	10- 15	1867	1493	1867
DEC 13	0- 5	5- 10	10- 15	0	5228	3361
1977						
JAN 25	0- 5	5- 10	10- 15	0	1120	1120
MAR 2	0- 5	5- 10	10- 15	0	373	0
MAR 28	0- 5	5- 10	10- 15	373	746	0
MAY 16	0- 5	5- 10	10- 15	14192	0	3983
JUN 16	0- 5	5- 10	10- 15	7469	2240	0
JUL 21	0- 5	5- 10	10- 15	0	0	373
AUG 25	0- 5	5- 10	10- 15	0	373	0
SEP 29	0- 10			746		
NOV 1	0- 15			373		
DEC 15	0- 5		5- 15	746		1120
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	1120		0
MAR 13	0- 5		5- 15	746		186
MAY 17	0- 4		4- 9	12605		373
JUN 22	0- 5		5- 11	5602		2489
JUL 20	0- 5		5- 15	5975		2614
AUG 17	0- 5		5- 15	373		4108
SEP 14	0- 9		9- 13	414		0
OCT 24	**0- 25			0		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

KERATELLA COCHLEARIS EGGS

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			2526		
JUN 19	0- 3		6- 24	3995		6769
JUL 17	0- 6		9- 24	139		0
AUG 14	0- 6		9- 24	0		929
SEP 11	0- 9		12- 24	116		185
OCT 9	0- 12		15- 24	278		2555
NOV 6	**0- 24			1806		
1975						
JUN 2	0- 2	---	---	0	---	---
JUN 30	0- 2	---	---	0	---	---
JUL 28	0- 2	---	---	0	---	---
AUG 25	0- 2	---	---	0	---	---
SEP 22	0- 2	---	---	0	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	0	0	0
JUL 26	0- 5	5- 10	10- 15	0	0	0
JUL 29	0- 5	5- 10	10- 15	0	0	0
AUG 5	0- 5	5- 10	10- 15	120	0	0
AUG 12	0- 5	5- 10	10- 15	0	203	0
AUG 19	0- 5	5- 10	10- 15	0	0	0
AUG 26	0- 5	5- 10	10- 15	611	0	0
SEP 2	0- 5	5- 10	10- 15	203	611	0
SEP 9	0- 5	5- 10	10- 15	373	0	0
SEP 16	0- 5	5- 10	10- 15	373	0	0
SEP 30	0- 5	5- 10	10- 15	0	0	0
OCT 14	0- 5	5- 10	10- 15	0	0	0
OCT 28	0- 5	5- 10	10- 15	746	746	746
DEC 13	0- 5	5- 10	10- 15	0	0	1867
1977						
JAN 25	0- 5	5- 10	10- 15	0	746	1493
MAR 2	0- 5	5- 10	10- 15	0	1120	1120
MAR 28	0- 5	5- 10	10- 15	373	1867	2987
MAY 16	0- 5	5- 10	10- 15	11204	16433	0
JUN 16	0- 5	5- 10	10- 15	2240	2240	5975
JUL 21	0- 5	5- 10	10- 15	3734	373	1867
AUG 25	0- 5	5- 10	10- 15	0	0	1120
SEP 29	0- 10			186		
NOV 1	0- 15			124		
DEC 15	0- 5		5- 15	1120		4855
1978						
JAN 12	0- 5		5- 15	1867		2427
FEB 13	0- 5		5- 15	16807		0
MAR 13	0- 5		5- 15	1867		7656
MAY 17	0- 4		4- 9	98040		30626
JUN 22	0- 5		5- 11	746		0
JUL 20	0- 5		5- 15	373		186
AUG 17	0- 5		5- 15	0		0
SEP 14	0- 9		9- 13	207		0
OCT 24	**0- 25			9785		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

OTHER SP. (EGGS)

1974	*SAMPLING LAYER (METRES) UPPER	MIDDLE	LOWER	# INDIVIDUALS PER M³ UPPER	MIDDLE	LOWER
MAY 22	**0- 21			0		
JUN 19	0- 3		6- 24	998		0
JUL 17	0- 6		9- 24	2229		387
AUG 14	0- 6		9- 24	5884		77
SEP 11	0- 9		12- 24	0		0
OCT 9	0- 12		15- 24	0		0
NOV 6	**0- 24			0		
1975						
JUN 2	0- 2	---	---	0	---	---
JUN 30	0- 2	---	---	0	---	---
JUL 28	0- 2	---	---	0	---	---
AUG 25	0- 2	---	---	0	---	---
SEP 22	0- 2	---	---	0	---	---
OCT 20	0- 2	---	---	0	---	---
1976						
JUL 23	0- 5	5- 10	10- 15	0	0	0
JUL 26	0- 5	5- 10	10- 15	0	0	0
JUL 29	0- 5	5- 10	10- 15	0	0	0
AUG 5	0- 5	5- 10	10- 15	0	0	0
AUG 12	0- 5	5- 10	10- 15	0	0	0
AUG 19	0- 5	5- 10	10- 15	0	0	0
AUG 26	0- 5	5- 10	10- 15	0	0	0
SEP 2	0- 5	5- 10	10- 15	0	0	0
SEP 9	0- 5	5- 10	10- 15	0	0	0
SEP 16	0- 5	5- 10	10- 15	0	0	0
SEP 30	0- 5	5- 10	10- 15	0	0	0
OCT 14	0- 5	5- 10	10- 15	0	0	0
OCT 28	0- 5	5- 10	10- 15	0	0	0
DEC 13	0- 5	5- 10	10- 15	0	0	0
1977						
JAN 25	0- 5	5- 10	10- 15	0	0	0
MAR 2	0- 5	5- 10	10- 15	0	0	0
MAR 28	0- 5	5- 10	10- 15	0	0	0
MAY 16	0- 5	5- 10	10- 15	0	0	0
JUN 16	0- 5	5- 10	10- 15	0	0	373
JUL 21	0- 5	5- 10	10- 15	0	0	0
AUG 25	0- 5	5- 10	10- 15	0	0	0
SEP 29	0- 10			0		
NOV 1	0- 15			0		
DEC 15	0- 5		5- 15	0		0
1978						
JAN 12	0- 5		5- 15	0		0
FEB 13	0- 5		5- 15	0		0
MAR 13	0- 5		5- 15	0		0
MAY 17	0- 4		4- 9	0		0
JUN 22	0- 5		5- 11	0		0
JUL 20	0- 5		5- 15	0		0
AUG 17	0- 5		5- 15	0		0
SEP 14	0- 9		9- 13	0		0
OCT 24	**0- 25			0		

*IN 1974 SAMPLES WERE TAKEN AT 3M DEPTH INTERVALS.

**ENTIRE WATER COLUMN.

Appendix 3A. Length-dry weight relationships for cladocerans of Lake 224.

Species	Length (mm) - weight (mg) Relationship
Daphnia galeata mendotae x thorata	$W = 0.00532\ L_b^{2.7235}$
Bosmina longirostris	$W = 0.0288\ L_b^{3.3458}$
Diaphanosoma brachyurum	$W = 0.00524\ L_b^{3.3282}$
Holopedium gibberum	mean dry weight 31.26 µg

Appendix 3B. Dry weights of Lake 224 zooplankton: Calanoida.

Life Stage/Species	µg/individual
Nauplius 1	0.046
Nauplius 2	0.075
Nauplius 3	0.103
Nauplius 4	0.154
Nauplius 5	0.217
Nauplius 6	0.287
Copepodid 1	
Diaptomus	0.331
Epischura	0.625
Copepodid 2	
Diaptomus	0.617
Epischura	0.911
Copepodid 3	
Diaptomus	1.262
Epischura	-
Copepodid 4	
Diaptomus	1.836
Epischura	4.947
Copepodid 5	
Diaptomus minutus female	1.958
Diaptomus minutus male	-
Diaptomus sicilis female	5.407
Diaptomus sicilis male	2.520
Epischura lacustris female	-
Epischura lacustris male	10.645
Copepodid 6 (adult)	
Diaptomus minutus female	2.182
Diaptomus minutus male	1.844
Diaptomus sicilis female	7.639
Diaptomus sicilis male	2.760
Epischura lacustris female	14.616
Epischura lacustris male	11.907

"-" indicates no data

Appendix 3C. Dry weights of Lake 224 zooplankton: Cyclopoida.

Life Stage/Species	µg/individual
Nauplius 1	0.021
Nauplius 2	0.034
Nauplius 3	0.052
Nauplius 4	0.088
Nauplius 5	0.125
Nauplius 6	0.170
Copepodid 1	0.298
Copepodid 2	
Cyclops	0.556
Tropocyclops	-
Copepodid 3	
Cyclops	1.081
Tropocyclops	0.167
Copepodid 4	
Cyclops	1.900
Tropocyclops	0.257
Copepodid 5	
Cyclops female	3.614
Cyclops male	2.220
Tropocyclops	0.320
Copepodid 6	
Cyclops bicuspidatus thomasi female	5.694
Cyclops bicuspidatus thomasi male	2.005
Tropocyclops prasinus mex. female	0.434
Tropocyclops prasinus mex. male	0.261

Appendix 3D. Dry weights of Lake 224 zooplankton: Rotifera.

Species	µg/individual
Conochilus unicornis	0.026
Filinia longiseta	0.037
Collotheca sp.	0.007
Ploesoma sp.	0.038
Polyarthra vulgaris	0.032
Polyarthra remata	0.010
Ascomorpha sp.	0.028
Gastropus hyptopus	0.016
Trichocera cylindrica	0.094
Trichocerca sp.	0.004
Keratella cochlearis	0.011
Keratella hiemalis	0.027
Kellicottia longispina	0.015
Kellicottia bostoniensis	0.010
Lecane sp.	0.028

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